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FINAL ENVIRONMENTAL IMPACT STATEMENT-

FP(ADM)-75-1-F

EMERGENCY ASSISTANCE

AS AUTHORIZED BY SECTION 216 OF THE FLOOD CONTROL ACT OF MAY 17, 1950

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Emergency Watershed Protection Authorized by
Section 216 of the
Flood Control Act of 1950, Public Law 81-516 (33 USC 701b-1)

FINAL ENVIRONMENTAL IMPACT STATEMENT

R. M. Davis
Administrator
Soil Conservation Service

October 1975

PREPARED BY:

UNITED STATES DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE

WASHINGTON, D. C. 20250

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USDA ENVIRONMENTAL IMPACT STATEMENT

Emergency Watershed Protection Authorized by Section 216 of the Flood Control Act of 1950, Public Law 81-516 (33 USC 701b-1)

Prepared in Accordance with
Sec. 102(2)(C) of Public Law 91-190

Summary

I. Final

II. USDA Soil Conservation Service

III. Administrative

IV. Brief Description of Action

Emergency assistance includes installation of measures to safeguard lives and property from floods and the products of erosion whenever floods, fire or other natural element or force causes abrupt damage to a watershed. Frequently used emergency measures include: establishment of vegetative cover, gully control structures, streambank protection, debris and sediment removal from channels, and emergency repair of existing dams, dikes, and other water control structures.

V. Summary of Environmental Impact and Adverse Environmental Effects

Emergency measure installation will reduce erosion, reduce sedimentation, reduce runoff, improve water quality by lowering turbidity, and protect lives and property from further damage by floods or products of erosion. In some cases, the installation of emergency measures may temporarily (1) degrade in-channel fish habitat by increasing stream sedimentation and water temperature, (2) cause loss of wildlife habitat on construction areas and access routes and (3) increase quantity of sediment and debris.

VI. Alternatives Considered:

Watershed protection and flood prevention; land use and flood plain management measures; increased funding of existing

program; existing program without sediment and debris removal, streambank stabilization and open channel measures; and no program are possible alternatives.

VII. Agencies From Which Written Comments Have Been Received On The Draft EIS.

Comments on the draft environmental impact statement were received from 10 federal departments or agencies, 35 states with more than one letter being received from several states, 2 individuals, and 10 local or private organizations. A list of reviewers sending comments is included in section 6a of the final environmental impact statement. The comments are reproduced in their entirety in Appendix D.

VIII. Draft Statement Transmitted to CEQ on March 28, 1974.

USDA FINAL ENVIRONMENTAL IMPACT STATEMENT

Type of Statement: Final [1/]

Date: October 1975

Title of Statement: Emergency Watershed Protection Authorized by Section 216 of the Flood Control Act of May 17, 1950, Public Law 81-516 (33 USC 701b-1)

1. Description

Emergency measure installation is authorized by Section 7 of the Flood Control Act approved June 28, 1938, as amended by Section 15 of the Flood Control Act approved December 22, 1944, and as amended by Section 216 of the Flood Control Act of May 17, 1950, Public Law 81-516 (33 USC 701b-1).

Appendix C is a reproduction of the complete text of Title 33 USC 701b from the 1970 edition of the United States Code. Section 701b-1, which is a part of Appendix C, cites the authorization for funding to install emergency measures.

A "sudden impairment" is defined to mean an abrupt injury to the watershed's physical conditions caused by fire, flood, wind, tornado, earthquake, landslide, or other natural force. Damage may include removal of vegetative cover, sediment and debris accumulation, exposing streambanks to erosive forces, and development of gullies. The existing pre-disaster environmental condition is altered to the post-disaster environmental condition by the sudden impairment (see Figure 1). A "disaster" as used in this document reflects the magnitude of the injury caused to the watershed. The intent of emergency assistance is to apply measures to those post-disaster environmental aspects which threaten the safety of lives and property. The term "emergency" is used to define the timeliness for providing assistance to disaster victims. Emergency refers to the need for early correction of physical damage to the natural landscape so as to preclude further, even more extensive, damage if a subsequent storm event were to occur.

[1/] All information and data except as otherwise noted was prepared and analyzed by the Soil Conservation Service, USDA.

CONTINUOUS CYCLE OF ENVIRONMENTAL CONDITIONS

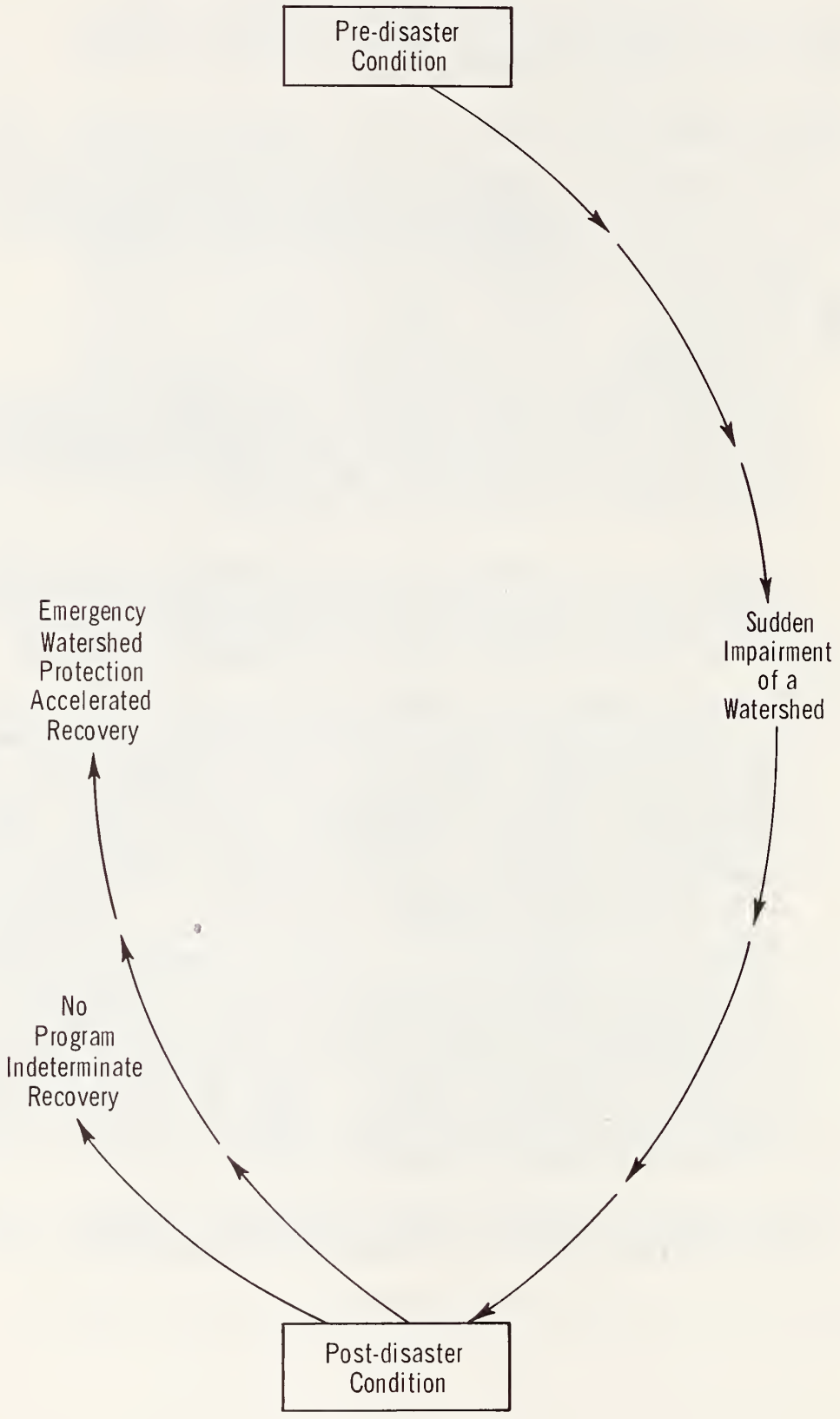


Figure 1

This environmental statement is a program evaluation. Emergency assistance as described in this document is on-going. Immediate availability of funds is necessary to provide timely assistance after a disaster. It is not possible to anticipate the extent or exact kinds of emergency conditions that are likely to occur. The following sections list some typical emergency conditions and the kinds of measures that are eligible for emergency assistance.

1a. Forest fires, landslides, and other natural events that leave an area devoid of vegetation

Accelerated erosion damages property causing soil to be physically washed away, deposition of eroded soil as sediment in watercourses, reduction of fertility of eroded lands as nutrients are carried away, and degrading of downstream reaches as soil nutrients enrich the waters thus encouraging eutrophication. Erosion rates approaching 190 tons per acre per year have been measured on exposed unprotected land in Maryland and Virginia (12 and 13).[2/] Erosion rates of 100 tons per acre per year in burned over forest lands in California have been reported (2). These erosion rates may not be typical for all areas of the country following a sudden impairment of a watershed by natural forces. In any case, erosion rates following a disaster may be unnaturally high and inhibit the recovery from the post-disaster environmental condition.

Sediment yield resulting from the increased erosion chokes streams, reduces the conveyance capacity of natural streams, and degrades some types of fish habitat. Clogged streams pose a threat of more frequent flooding and the danger of loss of lives and property. Sediment may clog water supply and treatment systems, irrigation structures, and man-made improvements.

Land devoid of vegetation are subject to land slips and slides. Vigorous vegetation stands have a developed root system which assists in holding earth on natural slopes (12, 13, 14, and 15). After a rainfall, vegetation assists in the orderly removal of excessive soil moisture. Soil moisture tends to remain longer and through lubrication helps increase landslides whenever vegetation and its associated root system is missing.

Logroads and trails on burned areas are subject to being washed out or turned into watercourses when watershed vegeta-

2/ Numbers in parentheses refer to list of references in Appendix A

tion is abruptly removed by natural forces (16). Recreational site and other multiple-purpose use of areas devoid of vegetation are also subject to erosion and sediment damage.

Land devoid of vegetation will produce increased surface runoff (3 and 4). The increased runoff compounds the threat of flooding by contributing to storm waters already in the stream system. Change in runoff increases the potential for property damage and loss of lives. An impaired watershed will contribute to amplified flooding potential even if a storm of normally expected magnitude would occur.

Areas devoid of vegetation cannot provide habitat for wildlife species which formerly occupied them. Most wildlife will escape from relatively small fires or other natural disasters and reside in nearby undamaged areas. In disasters covering large areas, some of the wildlife will survive neither the fire nor the abrupt damage to the watershed.

Fish habitats will be destroyed or degraded by disasters. Forest fires and other natural events removing vegetative cover destroy the canopy over streams. This causes a rise in stream temperature and a corresponding reduction of stream bio-activity(1). Loss of the stream canopy reduces the amount of organic detritus material and eventually reduces the aquatic food chain in streams (57). Landslides will physically cover and destroy fish habitat. Areas devoid of vegetation are susceptible to accelerated erosion. Sheet erosion may be as high as 30 to 100 tons per acre per year following a forest fire (2, 3, and 4). Erosion becomes the source of sediment held in suspension (5). Increased sedimentation carries additional nutrients on the soil particles (6, 7, 8, 9, and 10) thus degrading fish habitat both at the scene of the disaster and downstream. Accelerated erosion increases stream turbidity and adversely affect fish habitat (11) as light transmission and other physical properties are reduced or changed.

Emergency measures used to alleviate the adverse conditions caused by areas suddenly devoid of vegetation may be any or all of the following practices (14). Planting grass, shrubs, and other adopted or native vegetation along with recommended fertilization (15) and mulch may be used to establish a vigorous vegetative cover. In some cases a diversion may be used to keep excessive runoff off the seeded area until germination has occurred. Establishment of vegetative cover is the first line of defense against forces of erosion, sedimentation, accelerated flood runoff, and increased nutrients in water (see list of references as several of the authors support this conclusion).

Specific species of plants recommended are contained in the Technical Guide maintained in each Soil Conservation Service field office. Fertilizer recommendations are obtained from agronomists and university staffs familar with plant requirements and capability of the soil resource..

1b. Severe gully and logroad erosion caused by stormwater runoff.

Forest fires, floods, or other forces causing a sudden impairment of a watershed expose natural watercourses of log roads to critical erosion more severe than existed in the pre-disaster environmental condition. As a result, watercourses are exposed to potential gully producing forces. Severe erosion impairs log roads. Such conditions represent a loss of property as land is destroyed and washed downstream. Critical erosion further aggravates the post-disaster environmental condition. Erosion rates from gullies have been measured as high as 400 tons per acre per year (17).

Erosion material from gullies and roadbanks (16), as well as other sources, becomes sediment that reduces water transport capacities of streams and fills lakes causing spawning, resting, and feeding reaches to be covered or reduced in size. Sediment and the entrapped nutrients contribute to eutrophication of bodies of water (18 and 19).

Sediment flowing into lakes will degrade water quality by increasing suspended solids and turbidity resulting in degraded fish habitat (20 and 21).

Wildlife habitat will be of reduced value in areas of active gullies and severe log road erosion. Normal activities of wildlife species are interrupted as the erosion process physically removes land, food, cover, nests, resting places, and other habitat values. Wildlife species which utilized the areas during pre-disaster environmental conditions must seek new habitat for their existence.

Gully control measures may consist of vegetative plantings and smoothing, or structural measures (14, 22, 23, and 24). Land smoothing is removing irregularities on the surface to aid the establishment of vegetation. Structural measures consist of drop structures, diversions, and dams. The purpose of structural measures is to reroute stormwater away from active gullies or to control the waterflow over and through natural soils thus reducing gully producing forces. In some situations, a dam or drop structure may be needed to inundate the active gully and thus prevent further loss of property.

Log road stabilization principles utilize establishment of vegetative cover on exposed roadbanks, cleanout of road ditches and culverts, diversion of stormwater around roadways, the non-erosive control of water in roadside ditches, and mechanical protection of exposed road and streambanks (14, 24, and 26).

1c. Unstable streambanks caused by floods and erosion forces.

Floods, forest fires, landslides, earthquakes, tornados, or other natural forces may strip away stream channel vegetation. The stream vegetative canopy affects water temperature (27, 28, and 57) and the availability of food and nutrients in the aquatic ecosystem (1, 29, 30, and 57). These adverse effects degrade the fish habitat from the pre-disaster environmental condition.

Lack of streamside vegetation allows flash flooding (1) as stormwater can flow downstream more quickly and create eroding velocities along the exposed streambanks. Also, streamside vegetation has a filtering effect of trapping sediment being carried in flood waters.

The following quotation is from A.D. Little, Inc., Report on Channel Modifications, Volume I submitted to the Council on Environmental Quality, March 1973, pages 202 and 203.

> "From various studies it is evident that the natural vegetation of the watershed and streambanks are extremely important in controlling excessive temperatures, furnishing food for the various aquatic organisms in the stream, and regulating flow and nutrients entering the stream. It is these natural conditions together with the shape of the channel of a stream, the roughness of its bed, the diversity of pattern of its current, and its interrelationship with the vegetation on its immediate banks that produces a set of conditions to which the stream ecosystem evolve over time. The vegetation on the immediate banks of a stream stabilizes the banks and prevents their slumping into the channel proper and thus decreases the sediment load. Typically, these sediment loads are unstable in the bed of the river and are continually shifting, thus rendering the bed of river unsuitable as habitats for aquatic life. In these areas, the center of the channel is rarely a suitable habitat for aquatic life."

← NOT Always

Although the A. D. Little Report did not deal specifically with stream channels damaged by natural forces, the impacts are similar enough to relate to the severe disasters on stream resources.

Overhanging vegetation provides variable light patterns for streams (1 and 57). This variable light pattern increases the diversity of the aquatic ecosystem. The A. D. Little Report (1) and Dr. Vannote (57) point out that overhanging vegetation is one of the main sources of organic detritus material entering streams. These desirable characteristics are lost when fires, floods, landslides, earthquakes, tornadoes, or other natural forces strip away streamside vegetation.

Damaging sediment may be produced by either sheet or channel-type, streambank, and bed erosion. In some parts of the country, the major sources of coarse sediment material are gullies, landslides, and other mass movements. Information contained in the A. D. Little Report relate to impacts caused by erosion and sediment transport, turbidity, organic matter in streams, and suspended solids. These impacts also describe similar impacts which may be caused by stream resources abruptly injured by extreme natural forces. The term "channelization" may be interpreted as an unstable streambank caused by natural forces, particularly if the natural forces are extreme in magnitude. Not all streams and disaster areas are injured to the extent described. The following paragraphs are quotations from the March 1973 Report on Channel Modifications, Volume I, submitted to the Council on Environmental Quality and prepared by A. D. Little, Inc., pages 244 through 247.

> "Erosion and sediment transport may be manifested by increased turbidity of the water or the increase of deposition of sediments within the channel. Sediment, which arises from channelization, is almost entirely material eroded from the flood plain and the channel bed and banks. This sediment load is of three types--suspended solids, bedload, and colloids. The suspended solids are those particles that are carried along by the current. Whenever the current is slowed down these suspended solids drop out, the amount and size of particles dropping out depending upon how much the current is reduced. The bedload consists of those sediments that are rolled along the bed of the stream. The roughness of the stream bed, which is so important in developing the diversity of habitats for stream organisms, owes its existence to the high velocity associated with flood flows."
>
> "These bedload sediments produce an unstable habitat and as a result an unfavorable environment for supporting aquatic life. A bedload naturally occurs in streams that

flow through unconsolidated sediments, but in many streams following channelization, it develops from the erosion of the banks of stream together with sediments from other sources."

"The colloidal material is carried on long distances in the flowing water. Colloids are particularly important because they adsorb onto their surfaces various nutrients such as ammonia and phosphates and they also adsorb toxic materials such as heavey metals. Thus the increase of these colloids within a stream often results in an increase in nutrients. Indeed, in the Academy studies there were almost always evidence of increased nutrients in the water when increased silt loads, including colloids, were present."

"A sediment load may result from unstable stream-banks which develop after the banks are snagged or vegetation is removed. Under such conditions the roots of the plants are no longer holding the soil material in place and they slump into the stream. This slumped material may either remain along the edges of the stream or may form unconsolidated or consolidated berms within the stream itself. Some of the finer particles of this material are carried down and increase the turbidity of the water. Such conditions particularly occur after a storm."

"Turbidity may also be produced by the eroding of the stream bed. In the dredging and shortening of the stream, sometimes a slope or gradient greater than that which is characteristic of the stream develops. Such an increase in slop causes the stream to degrade upstream and aggrade downstream. The resultant sediment load is transported down-stream, and in river areas of low velocities, unstable berms or silt bars are formed within the channel proper."

"The assimilation and mineralization of organic wastes by bacteria and subsequent oxidation may be slowed if sufficient oxygen is not produced by algae. In silt-laden streams, it often takes a much longer time for the stream to recover from an organic load than is the case if the stream was clear."

"Many organisms within a stream are filter feeders, and thus if there is a heavy silt load in the water their feeding apparati become clogged with silt and they are not able to live. Other organisms such as fish are adversely affected by too heavy a silt load in the water due to the abrasion of gill tissue. The gills of fish living in heavily silted waters often have their epithelial cells badly distended or in some cases destroyed. Thus the ability of oxygen to be transferred from the water to the blood of the fish is greatly impaired. This clogging of the oxygen exchange apparatus also occurs in insects and as a result these organisms are quickly eliminated. May flies are one of the most sensitive organisms to increased silt load. Species of caddisflies, which are filter feeders, are also a very sensitive group to high silt loads. Blackfly larvae and other filter feeders can likewise be affected."

"The effects of a sediment load in the stream on the structure of the ecosystem and upon individual organisms are various. It is well known that turbidity cuts down the depth to which light penetrates in a stream. Since light is necessary for photo-synthesis, turbidity may limit the zone in which algae can live and reproduce. Because algae form one of the most important food bases and in some cases the most important food base of stream organisms, anything that cuts down the productivity of the algae will tend to reduce the overall productivity of the ecosystem."

"The suspended solids load which settles out on the bed of the stream tend to homogenize the stream bed. It is the diversity or roughness of the stream bed that is greatly reduced when the crevices between rocks are filled up and covered with silt so that the surface of the bed of the river is composed of sediments of similar-sized particles. Under these conditions the flow is usually faster and greatly reduces the habitats for species occupancy."

"Many organisms, particularly fish, often deposit their eggs in beds, constructed on gravel shoals or in clean sand at the lower end of a pool or in riffles. This is particularly true in high-gradient streams. The water that filters through the sand carries with it oxygen which makes this area an ideal habitat for hatching of eggs and the young larvae. If a silt load is introduced into the

streams, these suspended particles often settle out between the sand and gravel particles and fill the interstitial spaces. As a result water with its oxygen cannot penetrate these areas and the sand becomes unfit as a breeding ground. The silt may also settle out and suffocate eggs and larvae."

"Vegetative plantings of native or adopted species along streambanks is the single most important measure to stabilize streambank erosion. Alternative measures are structural measures such as rock riprap, gabions, or mechanical streambank protection devices which may be needed to supplement thevegetative plantings(4, 14, 19, 25, 26, and 31).

1d. Stream channels clogged with debris and sediment

Sections 1a, 1b, and 1c have described how floods, fires, or other natural disasters denude lands of protective vegetation and how subsequent storms create accelerated erosion. The erosion material winds up in streams as sediment. Likewise fires, floods, or other forces causing a sudden impairment of a watershed strip streambank vegetation and abruptly expose streams to vast increases in sediment production. Many of the adverse impact associated with channel work as recognized in the A. D. Little, Inc., Report (1) and the National Water Commission Report (32) occur because of the abrupt injury to a watershed caused by natural forces.

The threat of loss of lives and property exists wherever stream channel conveyance capacity has been reduced, where eroding streambanks are consuming lands used by man in his activities, or where bridge and road culverts are filled with sediment. When any of these post-disaster environmental conditions exist, the risk of imminent flood damage is great even if a normal storm should occur.

Clogged streams can back water into residential areas causing failure of basement walls, reducing efficiency of urban storm-water drainage systems, inducing health hazards as sanitary drainage is hindered, and increasing breeding of mosquitoes and rats (33). Hazards to humans are in the form of health and safety of the living conditions. If left uncorrected, residents of these areas often abandon their homes (34).

Clogged streams cause increased flooding of agricultural land resulting in reduced crop yields. With a reduction in yield, additional land resources are required to produce the amounts of food and fiber demanded by society. Increased man-hours, machinery, and fuel are required to bring the additional lands into production.

Streams clogged with sediment and debris often flood rural roads. Rerouting of traffic to longer routes delays delivery, increases the costs of transportation, and increases the consumption of fuel.

Emergency measures to correct these adverse post-disaster environmental conditions consist of vegetative planting of adopted or native species in areas devoid of cover; removal of sediment and debris from channels, bridges, and road culverts; construction of open channels or floodwater diversions to reorient the stream to eliminate or reduce the emergency condition; and installation of debris basins.

1e. Damage to existing dams or dikes that pose an imminent threat to lives and property.

Floods and other disasters may damage existing dikes, dams, gully stabilization structures, or other structural measures for water and erosion control. Whenever these structures are damaged to a degree where an imminent threat to the safeguard of lives and property exists, prompt repair is essential. Failure of an existing structure would further damage fish and wildlife habitat. Streamside and flood plain vegetation may be lost as excessive flood stage velocities occur during a dam or dike failure. Streambanks would be exposed to severe erosion resulting in the degrading of downstream aquatic habitat.

Dam failure and washouts deposit large amounts of sediment downstream. Many dams such as floodwater retarding structures, dams to contain mine tailings, mill dams, power dams, and others hold volumes of sediment in their reservoir areas. Any wash-out of the dam exposes the potential for downstream flushing of this sediment. Likewise many dams are constructed of earth embankments. An abrupt failure of the dam will transport portions of the earth embankment downstream.

Emergency measures include the immediate repair of dams, dikes, and other water resource structures to protect the post-disaster environmental condition from further damages. Emergency repairs of dams, dikes, levees, grade stabilization structures, and others may include replacement of washed out or weakened earth embankments, repair of damaged spillways, and realignment of flood channels which may be encroaching on developed flood plains. Emergency repairs do not include those items normally accomplished in the regular operation and maintenance of the dikes and dams.

Emergency measure funds may not be used to install planned structures that will supplement structures in authorized water resource projects.

1f. Implementation of emergency measure installation.

Following a fire, wind, tornado, flood, earthquake, landslide, or other natural force causing a sudden impairment to a watershed that poses a threat to the safety of life and property, requests from local or state units of government are made for federal assistance to install emergency measures. Requests are made to the Soil Conservation Service or U. S. Forest Service Requests contain proposals for the amount, kind, and estimated cost of emergency measures that may be needed. The SCS State Conservationist or Forest Service Regional Forester or Area Director will initiate an investigation to determine eligibility of the request and, if eligible, will forward a request for emergency measure funding to the Administrator of the Soil Conservation Service. To the extent that funds are available, the Administrator authorizes eligible emergency measures to be installed. Specific implementation instructions are contained in Watersheds Memorandum-124, Revision 1, and in the Forest Service Manual, 3540. Soil Conservation Service Watersheds Memorandum-124, Revision 1, is attached as Appendix B.

The Act of June 28, 1938, authorized the Secretary of Agriculture to install emergency measures for runoff and water flow retardation and soil-erosion prevention on watersheds in the Rio Grande and Pecos Rivers. Funds for implementation were transferred from the Department of the Army. Authorization for the transfer of such funds expired on June 30, 1944.

The Act of December 22, 1944, extended the authority of the Secretary of Agriculture to install emergency measures for runoff retardation and soil-erosion prevention to apply nationwide. This same Act also authorized up to $100,000 per year, if needed, of regular USDA appropriations to be used for emergency measure installation.

Section 216 of the Flood Control Act of May 17, 1950, amended the Act of December 22, 1944, to increase use of regular USDA appropriations to $300,000 per year, if needed. Appendix C contains a reprint of Title 33 USC 701b of 1970 edition of the United States Code and the authorization to provide emergency assistance.

In order to obtain federal assistance for emergency measure installation, sponsoring organizations obtain land and water rights, construction permits, and accept responsibility for maintenance, if needed, of completed emergency measures. Sponsoring organizations may be any group, states, legal sub-

divisions of states including special districts, and other federal agencies which possess the authority mentioned. Federal, state, and local laws and regulations are followed in carrying out the program. The sponsoring organizations recommend priority for emergency measure installation.

It is impossible to forecast when an emergency will occur, the cause, or the extend of such a disaster. Therefore, this environmental statement cannot deal with quantitative assessments of emergency measures to be installed. Section 216 of the Flood Control Act of 1950 authorizes an annual amount not to exceed $300,00 be used for this purpose. Should no sudden impairment of a watershed occur, these funds are available for regular flood prevention work.

In recent years, there have been several large scale disasters of severe magnitude usually involving more than one state. Supplemental appropriations were made to provide adequate levels of emergency assistance over these large disaster areas. Dates and amounts of supplemental appropriations are shown in the following table:

Fiscal Year	Supplemental Appropriation	Disaster Event
1969	$ 4,000,000	Forest fires in California, Nevada, and Washington, Oregon
1970	3,700,000	Hurricane Camille, Virginia
1973	16,500,000	Hurricane Agnes and Black Hills, South Dakota flood
1973	20,000,000	Flooding in the Mississippi River Valley & adjacent areas.
1974	22,500,000	Flooding in the Northwest, Northeast, North Dakota, Mississippi River Valley and adjacent areas

Nonstructural assistance is considered for assistance in disaster areas. Nonstructural measures may include land use and flood plain management aspects. Non-structural measures do not provide immediate safeguarding of lives and property but are a long-term solution to the reduction of ever-increasing flood damage potential. Nonstructural measures are ineffective

in preventing future damages from wind, tornado, fire, landslides, and other non-flood disasters. The USDA provides technical assistance to conservation districts to assist individuals and organizations in implementing nonstructural measures.

Environmental considerations are important objectives in emergency assistance. Establishment of a vegetative cover is the prime objective in reducing erosion, runoff, and restoring wildlife habitat. Native and adaptable plants for conservation are used to enhance scenic beauty and create variety while providing cover for erosion control and wildlife habitat. Emergency measures that protect life and property are modified to also protect natural features or minimize degrading of wildlife habitat. Reduction of erosion and installation of debris basins will directly reduce sedimentation that is often of major proportions following a disaster.

Emergency watershed protection is intended to assist in rehabilitation of those portions of the post-disaster environment which threaten the safety of lives and property. Emergency measures contribute to the reinstating of the relationship of upstream and downstream flooding that existed in the pre-disaster environment. Wherever vegetative cover has been destroyed or water control structures altered by a disaster to the extent that remnant conditions threaten lives and property, emergency funds may be used to revegetate or to install measures to reduce the threat.

Installation and construction techniques will be commensurate with the size and extent of the emergency measure being installed. Standards and specifications are adapted to local climatic conditions, vegetative species, soil erosive properties, and specialized techniques to control the erosion and construction equipment and methods customarily found. To the extent possible, standards and specifications used for installation of similar measures and on file in SCS Field Office Technical Guides are followed in emergency assistance work.

The following construction techniques are among those used to minimize stream sedimentation during emergency measure installation: work from one side only, provide culverts for stream crossings, limit work zones to areas upstream and downstream from highway bridges or other stream access points, revegetate exposed construction areas immediately after work is completed, and maintain natural vegetation and streambanks. Emergency measures are selected to utilize existing access to the fullest extent.

The Fish and Wildlife Service, the Environmental Protection Agency, state fish and game agencies, and other appropriate environmental interests are strongly encouraged to participate in the emergency measure planning and installation. Emergency assistance is provided in a manner harmonious with the environment. Other special expertise such as archeological or historical aspects is solicited from the appropriate agencies or groups. Environmental considerations are integrated into emergency work using an interdisciplinary planning approach and the knowledge gained from consultation with inter-organizational groups.

Since it is impossible to anticipate future emergencies, some examples of the amount, kind, diversity, and extend of emergency watershed protection measures installed during the last few years are given as examples to illustrate various situations that may occur.

Emergency assistance has been provided in a wide variety of geographic areas and situations. Six burned areas were treated in California, Nevada, Washington, and Oregon in 1969 (35). Emergency measures included seeding 80,600 acres of burned area; stabilization treatment of 232 miles of roads, trails, and firelines; construction of one temporary debris basin; clearing debris from and vegetating 5 miles of exposed stream channel; fertilizing 13,861 acres of emergency seeding; rodent control on 4,656 acres; seeding brush on 352 acres; and deferring grazing on 11,575 acres.

Following Hurricane Camille, contracts were awarded to remove obstructions and to restore the capacity of impaired streams. In many situations the natural drainage pattern had been completely obliterated. In total, 561 miles of emergency streambank stabilization, debris removal, and restructuring channel was completed on 80 streams in Virginia. Other work included vegetating 3,300 acres of critical sediment producing areas which had been stripped of vegetation by the hurricane and the resulting floods.

Emergency measures installed because of the 1969 California floods and fires included seeding of 14,400 acres of watershed lands; revegetating and stabilizing 1,865 acres of slumps and landslides; debris removal from 18 miles of clogged channels; stabilizing 4,400 feet of streambanks; and installing 42 debris basins and check dams.

Normally, emergency work is widely scattered throughout a disaster area as it was following the flood caused by

Hurricane Agnes. Over 730 requests for emergency assistance were received by the Soil Conservation Service. More than 550 of the requests were installed at an average cost of $16,000 per emergency measure installation. Emergency assistance following Hurricane Agnes was carried out in New York, Pennsylvania, Maryland, and Virginia.

Major flooding on the Mississippi River Valley and adjacent areas in the spring of 1973, resulted in a supplemental appropriation of 20 million dollars. Nine states suffered damage. Seven million seven hundred and fifty thousand acres were flooded and over 2.5 million acres of these were cropland. Emergency measures included repair to badly damaged dams and levees, debris removal from channels, repair and reseeding sediment producing areas, and conservation measures to retard gullying, landslides, and sheet erosion on denuded areas.

Proposed emergency measure action is coordinated with agencies responsible for administering other emergency programs. These agencies include: The Agricultural Stabilization and Conservation Service, Farmers Home Administration, Forest Service, U. S. Army, Corps of Engineers, Small Business Administration, and Federal Disaster Assistance Administration. Such corrdination avoids duplication of effort and insures a multiple discipline approach to solving emergency problems. Emergency measure installation compliments assistance given by other federal, state, or local emergency programs.

2. Environmental Impacts

Emergency measures are installed to protect lives and property from intensified erosion and amplified flooding potential after the occurrence of a natural force causing a sudden impairment of a watershed. The post-disaster environment is in an unstable and damaged state. The potential often exists for additional catastrophic impacts on an impaired watershed should a normally expected storm or flood occur. Emergency assistance is designed to help stabilize the watershed and protect against this dangerous potential. Emergency measures thus help to correct and prevent further impairment of the watershed.

The pre-disaster environment is in a continuous cycle of change resulting from natural forces (see figure 1). Cycles are of undetermined lengths and vary with conditions. Most emergency measures will help accelerate ecosystem recovery of a watershed after a disaster.

Environmental impacts are discussed in the following sections. These impacts are related to a wide variety of emergency measures that may be needed to provide relief from the different disasters. Only a few of the potential environmental impacts are expected to occur with a given emergency measure.

2a. Environmental impacts resulting from establishment of vegetative cover

Vegetative cover such as grass and other adapted or native species reduces erosion on exposed land. Research conducted by the Agricultural Research Service and numerous universities has demonstrated the effectivness of vegetative cover (2, 3, 14, 15 and 36). Erosion of soil material on one research plot yielded 65 tons per acre per year on unprotected (no vegetative cover) land while a nearby plot with forest cover eroded only 0.002 tons per acre per year (36). Other studies indicate annual erosion rates of 100 and 190 tons per acre per year on areas barren of vegetation (4, 12, and 13). The long-term goal of establishing vegetative cover is to reduce erosion rates to 3 to 5 tons per acre per year. This goal may not be met during the emergency measure installation period.

Vegetative cover will reduce surface runoff from exposed areas. The additional water retained is available for plant growth, groundwater recharge, and direct evaporation into the atmosphere. One test showed that bare exposed (no vegetative cover) land had 30 percent runoff while a nearby test plot with established vegetation experienced only 1 percent runoff (36). However, this test may not be typical of the various runoff situations throughout the country. Frevert, Schwab, Edminister, and Barnes (22) report that the establishment of vegetative cover is the most important factor influencing infiltration rates and reduction of surface runoff. Tables and graphs presented in the Soil and Water Conservation Engineering Handbook (22) summarizes results of numerous research efforts related to runoff.

Vegetative cover reduces total sediment, chemicals, and minerals carried in stream water. Sediment and its attached nutrients tend to degrade water quality and are detrimental to fish and marine life (1, 6, 8, 11, 20, 21, and 37). The reduction of erosion, and the consequent reduction of sediment particles in streams, will improve the post-disaster environmental condition brought about by the establishment of a vegetative cover.

Vegetative cover contributes to increased organic matter in soils (38 and 39). Soils protected from excessive erosion will hold water and nutrients (40 and 41) for future plant growth. Reduction of erosion will protect the numerous living organisms contained in the root zone of soils (42). The soil is an ecosystem that is protected and perpetuated by reducing soil eorsion.

Soil particles picked up by wind contribute to degrading air quality. Establishment of vegetative cover will reduce wind erosion (43) and windborne soil particles.

Establishing a vigorous vegetative cover provides food and cover for wildlife. Multiple-use of land is a desired objective (44) as society can reap more than one harvest from a given land use. Vegetative cover along streams (1, 32, and 57) contributes to increased fish habitat by supplying organic detritus materials for food and shady cover which regulates water temperature.

Installation of emergency measures will alter aesthetics of natural valleys. The disaster undoubtedly reduced vegetative cover, caused excessive erosion and sedimentation, piled debris on flood plains, and otherwise changed the aesthetic value of natural areas. The establishment of native and adapted vegetative species will tend to restore aesthetic values.

2b. Environmental impacts resulting from installation of gully and logroad control structures

Sediment will be reduced by controlling advancing gullies. Research (17) estimates that active gullies contribute up to 400 tons per acre per year. Similar erosion rates are anticipated along logroads and their drainage ditches (16). The goal of emergency measures is to reduce erosion rates to 3 to 5 tons per acre per year. This goal may not be met during the emergency measure installation period.

Logroad stabilization consists of vegetative cover on exposed banks, stabilization of drainage ditches, and use of diversions to route surface water away from road areas. Emergency logroad measures will stabilize threatened roads for use by emergency rescue or firefighting teams, reduce erosion, and reduce potential of existing road drainages from becoming gullying forces.

Land stabilized by installation of terraces will reduce velocity of surface runoff waters to increase infiltration, reduce erosion, and reduce losses of natural soil fertility by nutrients being carried away in runoff water and eroded particles. With erosion and runoff reduced, native and adapted vegetative species can be more easily established.

Wildlife habitat can be effectively improved by the use of conservation practices. Wetland areas and other natural wildlife lands can be managed to increase habitat (45).

2c. Environmental impacts resulting from installation of streambank stabilization by planting vegetative cover or use of mechanical protection

Exposed streambanks contribute sediment directly into streams. Sediment will cover spawning areas (1, 6, 11, 20, 21, and 57) and also increase turbidity thus interfering with light transmissibility as well as organism feeding (1 and 32). Use of vegetative cover supplemented by mechanical protection such as rock riprap, gabions, cribbing, or piling reduces the source of direct sedimentation (1, 14, 19, and 32) and other adverse impacts.

Remaining pockets of streambank wildlife habitat will be lowered in quality by installation of mechanical streambank protection. This will be caused by clearing banks for installation of rock riprap or other protective covers. Establishment of vegetative cover increases wildlife habitat potential of streambanks and restores habitat in the post-disaster condition. Normally, mechanical streambank protection is used in short reaches around sharp curves or where there is excessive stream gradient. Most streambank stabilization utilizes vegetative plantings. Therefore, a gain is expected in wildlife habitat over conditions that existed immediately following the disaster.

Stream turbidity will temporarily increase during installation of streambank stabilization measures (1). Occasional traversing of stream channels by construction equipment will cause settled particles to move downstream. Such temporary increase in turbidity will adversely affect downstream fish habitat (1, 6, 11, 20, 21, and 32) by depositing sediment in stream pools, covering spawning areas, and reducing the food chain. These adverse impacts will occur in the post-disaster environmental condition where nature has already degraded the fishery habitat. The increased turbidity created during installation of the emergency measures is expected to be minor when compared to increased turbidity created by the disaster or a flood which occurs before recovery of the watershed.

2d. Environmental impacts resulting from debris and sediment removal or installation of floodwater diversions, open channel, and debris basins

Lives and property are safeguarded from the imminent threat of flooding by the removal of flood debris, sediment, and reinstatement of channel flow capacity. Mankind can continue to use developed flood plain areas for living, work, or play.

Agricultural areas subjected to increased flooding in the pre-disaster environmental condition may have reduced crop yield potential. For the nation to produce the quantities of food and fiber required by society, additional land would be needed to restore production. Removing sediment and debris from channels that flood agricultural lands contributes toward reducing the need for fertilizers, saves fuel as fewer acres are needed to produce a given quantity of commodities, and retains existing wildlife habitat of the flood-free lands which potentially would be converted to agricultural lands. Individual farmers that are the victims of a disaster may not have the option of bringing additional land into production; however, the overall agricultural community will tend to adjust to produce essential food and fiber.

Removal of sediment and debris, open channel installation, and reinstating the channel flow capacity in areas affecting human inhabitants will protect lives and property. Water backed into residential areas creates potential for mosquito and rodent breeding and spreading of diseases (33). Where urban drainage is restricted, water supplies become contaminated, sanitary drainage is plugged, and untreated sewage is dumped into receiving streams causing health hazards to exist. These adverse post-disaster conditions would be reduced or avoided after the removal of sediment and debris from clogged streams.

Clogged bridges, culverts, and streams near roads may cause over topping and damage to the public roads. Removal of sediment and debris and the resulting reestablishment of stream capacity will prevent unnecessary highway detours and the resulting delay in shipment of vital goods and services, increased costs to the unfortunate disaster victims, and increased use of fuel to travel detour routes.

Downstream sediment will be temporarily increased during debris removal or other construction activities. Adverse impacts are minimized as emergency cleanout involves relatively short stream reaches, concentration of emergency work near roadway crossings and other access points, brief construction periods, use of erosion and sediment control construction techniques, and occurs in the post-disaster environmental condition which is characterized by abnormally high ambient sediment rates.

Stream temperature will be increased whenever the vegetative channel canopy is removed (1, 28, and 57) by emergency measure installation. The increased water temperature has the effect of reducing bio-activity. Normally, emergency work would not involve removing streamside vegetation other than in access roads to transport machinery to and from work areas. Adverse impacts are minimized by concentrating efforts in areas adjacent to roads and accessible areas. Frequently, streamside vegetation has been removed by such disasters as intense flooding in steep gradient streams or forest fires.

Downstream flooding will be increased as floodwater is conveyed through cleared channels faster, thus allowing fewer opportunities for storage on the natural flood plain (1 and 32). The downstream flooding would be increased relative to the post-disaster environmental condition. However, the relationship of upstream flooding and downstream flooding would be essentially reinstated to the pre-disaster environmental condition. Removal of sediment and debris reinstate the flow regime which existed prior to the disaster.

Flood plain land use change could be induced as people may have a false security about being protected from future flooding (1). This impact is expected to be minimal as emergency measures are installed to remove clogged or restricted short reaches as opposed to modification of entire lengths of channel.

Flood plain and bottom land forests will be slightly reduced as access routes and channel clearing operations involve streamside vegetation (1 and 32). Again, this impact is minimized as much streamside vegetation had been previously removed or degraded by the disaster event.

2e. Environmental impacts resulting from repairing dikes, dam, and other water control structures

Repairing of damaged dikes, dams, man-made and natural channels, and other water control structures will assure the orderly, safe functioning of that unit. Imminent threat of failure and disastrous loss of lives and property are prevented. Water resource structures are usually constructed to protect populated areas. Thus, when damaged, immediate repair is urgently needed to avoid contributing to another disaster.

Occasionally, construction areas for emergency measures will be cleared. Such areas would be exposed to accelerated erosion and increases sediment in downstream reaches. Increased sediment will impact downstream fish habitat (1, 6, 11, 20, 21, and 32). This impact is minimized as it occurs in an area already degraded.

Wildlife habitat value will be reduced in areas requiring emergency work. Wildlife use of construction areas would be temporarily delayed until vegetation can once again be reestablished. This impact is minimized as the repair area is usually small and is located at or adjacent to the damaged portion of the structural measure.

Repair of an existing dam to prevent potential imminent failure will prevent the sediment depositions in the reservoir area being flushed downstream and deposited along streams. Also, the emergency measures will protect against the washout of the embankment itself. The repair of dikes and other water control structures will reduce this potential source of future sediment.

Although interdisciplinary planning is used for emergency measures and precautions are used to minimize adverse impacts, it is recognized that the nature of emergency work and the use of construction equipment may inadvertently cause temporary adverse environmental impacts.

2f. Other environmental impacts of emergency measures.

Resources such as construction equipment, fuel, materials, and manpower are used. These resources could be employed in other priority projects if not needed for emergency watershed protection. Overall, society could expect a net reduction in use of equipment, fuel, and materials by installation of emergency measures as opposed to traffic detours, development of new lands, and crop yield reductions on post-disaster flood prone areas.

Emergency measure installation restores the rural human environment thereby reducing the tendency or need of people to migrate to other areas (34). Rural People that migrate often find they are unable to obtain employment and this tends to compound existing problems.

Emergency measure installation will reduce the initiative of existing flood plain residents to seek and develop long-term solutions to the flooding problems. Land use management, often viewed as unpopular by residents, may prevent future increased flooding problems. However, the installation of emergency measures crystallizes local opinion by creating an atmosphere of a false sense of security. Structural flood protection measures may not be entirely effective in preventing damage from infrequent floods of great magnitude.

It has been demonstrated that flood prevention structural measures can be effective in reducing flood damages in project areas such as Upper Rock Creek, Maryland and Marsh Creek, Pennsylvania Watersheds (46). Several million dollars of flood damages were prevented by those projects and others in the Hurricane Agnes flood. Both of these are Public Law 83-566 Watershed Protection and Flood Prevention projects, not emergency measures. The public record also documents the effectivness of other flood prevention projects.

Installation of emergency measures will provide temporary employment in the disaster area. Since the numbers of people employed depend upon the amount of emergency assistance provided, a finite estimate of employment cannot be made (47) until after a disaster occurs. Other people in the disaster area not directly employed to install emergency measures would likewise benefit through related secondary activities.

In some instances, emergency measure installation will cause temporary increases in erosion (48) and air and water pollution. Air quality may be degraded by exhausts from construction machinery,

burning of debris, and disposal of other wastes. Except for some practices, such as aerial seeding and removing certain channel obstructions, the most carefully planned emergency work will impact the post-disaster environmental condition. To the extent that the post-disaster environmental recovery period is reduced, these impacts may be a net beneficial effect on the environment.

2g. Summary of favorable environmental effects.

Reduce erosion up to 100 tons per acre per year on areas devoid of vegetation.

Reduce stormwater runoff on exposed lands.

Reduce downstream sedimentation from exposed streambanks, active gullies, and land devoid of vegetation.

Establish cover and food for wildlife in areas devoid of vegetation.

Safeguard lives and property from the imminent threat of flooding.

Prevent additional disastrous damage from failure of weakened dikes and dams.

Assure continued production and utility of areas subjected to increased flooding on the post-disaster environmental condition.

Prevent downstream deposit of sediment presently stored in dams.

Prevent disease spreading and contamination of urban water supplies.

Reduce rerouting of traffic, save fuel, and prevent increased costs and delays in providing goods and services to the disaster victims.

2h. Summary of adverse environmental effects which cannot be avoided.

Streambank wildlife habitat will be temporarily degraded when emergency channel clearing, streambank stabilization, dikes, or other similar measures are installed.

Fish habitat both at the installation site and downstream will be degraded by emergency channel clearing, dike construction, debris basin installation, and other similar measures.

Water quality will be temporarily degraded by increased turbidity resulting from installation of emergency measures and increased water temperature resulting from the removal of channel canopy.

Construction areas and access routes may be cleared thus increasing potential erosion until vegetation can be reestablished.

Air quality will be degraded by construction equipment exhaust and waste disposal burning where permitted.

Local initiative to seek permanent long-term solutions may be reduced by the installation of emergency measures.

Removal of sediment and debris from clogged streams will restore the pre-disaster flood regime in reaches immediately downstream from the work.

Flood plain land use changes will be induced and loss of bottom land forest may occur due to construction and access routes causing adverse effects on fish and wildlife habitat.

3. Relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity

Mankind depends upon intensively managed, highly productive land for food supply, and upon developed land for living, work, and play. Much land is used so intensively that it would be unstable in the natural environment without man's management inputs. Without conservation treatment, pest control, and proper management, developed land would be subject to severe environmental changes (48).

Natural disasters such as floods, fires, landslides, or other natural forces can leave the land devoid of vegetation and exposed to increased and continuing erosion and sedimentation. The purpose and direction of the emergency measure installation is to protect man and his works and to be in harmony with the environment by maintaining soil in place and thus sustaining long-term productivity (23, 40, and 48).

Whenever developed land is damaged by a natural force, emergency assistance is essential to prevent damage which would limit usefulness of the land for future generations. Developed property subject to increased flood risk could be abandoned and left for nature to heal, but agricultural production and other intensive land uses would be shifted to land resources that may be physically less suitable for development. Ultimately, more land resources would be needed to supply food and living area. The invasion into the nation's fixed land resource would be accelerated. Emergency measures help preserve the stability and the high production potential of land for succeeding generations. Thus emergency assistance helps to maintain land in its present state of development and preserve natural areas.

4. Irreversible commitment of resources in maintaining resource base for future uses.

Land resources dedicated to debris basins, diversions, grade control structures, and water control structures are irreversibly committed.

The use of resources for installing emergency measures such as construction equipment, fuel, manpower, and materials is irretrievable. The investment in irreversible and irretrievable resources is believed to be smaller in carrying out emergency assistance than to allow the natural recovery process to occur on developed areas. Rerouting of traffic and the opening of additional lands for agricultural production, residential, and commercial use would require expenditure of large sums of irretrievable resources.

5. Alternatives

The alternatives discussed in the following sections are distinct, separate, and different ways to administer the emergency program. Alternatives that blend features of one section with features of another are not included as the reader can make comparisons on the desirability of such a blend. An alternative of the existing emergency program with modification is frequently suggested by other agencies, groups, or interested individuals. Because of the sheer number of such alternatives, possible modification of the existing program is not discussed except in alternative 5e, "the existing emergency measure installation without channel modification measures."

5a. No Program

No emergency watershed protection is an alternative to the existing assistance. Whenever a sudden impairment of a watershed occurs, the Secretary of Agriculture would be unable to provide assistance for the safeguarding of lives and property.

The no program alternative would leave the imminent threat of future flooding uncorrected. Future storms would cause increased flood runoff (23, 27, 35, and 46), increased erosion and sedimentation (3, 4, 5, 17, 23, and 46), and the unfortunate disaster victims would be subjected to more frequent flooding (14). Intensive use of flood plain areas would be reduced and rural residents would tend to migrate away from their homes (33, 45, 47, and 50). The impaired watershed condition would be untreated and subjected to the slower natural recovery process.

Wildlife habitat would be of reduced value on fire burned areas and other areas stripped of vegetation by floods, landslides, and other natural forces. Raw streambanks exposed by the forces of erosion will not support wildlife until vegetation can be reestablished (1 and 32).

Fish habitat in the abruptly injured watershed and in downstream reaches will be of reduced value. Acclerated erosion contributes to downstream sedimentation and turbidity which degrades aquatic habitat (1, 6, 11, 21, 26, 27, 39, and 54). Also, the increased sediment loads carry additional nutrients into the stream further degrading downstream reaches (7, 8, 9 and 36), lakes, and reservoirs (10 and 39).

Adverse environmental impacts caused by installation of emergency measures would be avoided. Temporary increase of stream sedimentation due to movement of construction equipment; clearing of access routes, debris disposal areas, and construction areas, and commitment of fuel, manpower, and other valuable resources would be avoided.

If the no emergency assistance were pursued, costs would be transferred from federal spending to increased costs for local government and victims of the disaster. Costs to society would undoubtedly be greater were no emergency measures installed, since the natural recovery period may be slow and residents of the suddenly impaired watershed would suffer prolonged economic losses.

5b. Watershed protection and flood prevention

An alternative to emergency measure installation would be installation of sufficient land treatment measures to control excessive erosion, structural measures to control flooding, and land use management to control development of flood prone areas. The use of temporary emergency measures such as sediment and debris removal from obstructed streams and repair of water resource structures would not be a part of such an alternative. Permanent structures would be floodwater retarding structures, multiple purpose dams, open channels and grade control structures. Land use management measures would be similar to those described in alternative 5c. A watershed protection and flood prevention program would be similar to a program now being administered by the Department of Agriculture, Soil Conservation Service, and authorized by Public Law 83-566, 69 Stat. 666, as amended.

Watershed protection and flood prevention assistance will control excessive erosion, reduce sediment by reducing flood flows to control sediment producing forces, provide for storage of sediment in dams and stabilization of sediment producing streambanks, prevent flooding of property and protection of lives, and manage future development on flood prone areas. Fish and wildlife habitat would be improved as sediment is reduced in streams (1, 53, 54, and 55), structural measures would be selected to include fish and wildlife development purposes, and conservation measures would be used to improve habitat. An interdisciplinary planning approach would be utilized to identify and minimize adverse impacts that might be caused by structural measure installation. Long-term permanent solutions to water resource problems would be possible rather than solutions expedient to immediate flooding and erosion problems.

Immediate alleviation of flood hazards would be delayed as the structural measures would require additional time for planning and installation. Damages would continue to occur until all measures are authorized and installed. In extremely rare and intense storms, assistance such as authorized by Section 216 probably would still be required.

A reasonable assessment of installation costs of permanent type emergency measures is difficult. Structures would probably cost more than emergency measures but emergency measures may be repeated in subsequent floods.

5c. Land use and flood plain management measures

This alternative would limit emergency assistance to land use management techniques and flood plain management by structural and non-structural measures. This alternative is not a true trade-off for emergency assistance but would be the substitution of a solution to ultimately reduce future flood losses, protect life and health, minimize the need for flood control structural measures, reduce the need for rescue and relief during periods of flood, discourage intensive developments in flood prone areas, and eventually stabilize the tax base for local units of governments. Responsibility for administration of land use management rests in the sovereign states and in many states all or segments of the responsibility has been delegated to local units of government.

Land use management elements consist of zoning ordinances, building codes, sanitary codes, forecast and warning systems, emergency evacuation, and tax incentives.

Flood plain management would include the techniques of land use management plus the "structural" or "program activities" of of floodproofing of buildings, flood insurance, mapping to delineate flood hazard areas and the periodic publication of the flood hazard maps, public purchase of frequently flooded areas, land treatment measures, and structures to protect an individual property such as a dike.

A suitable combination of land use and flood plain management measures would be grouped for any given problem area. Zoning ordinances (50) would be used to control or limit future intensive developments in flood prone areas. Existing developments would continue to be utilized. Zoning would limit flood plain uses to those that are compatible with the flooding nature such as recreational developments, nature areas, and certain agricultural uses such as low value crops, pasture, and forest production. Building codes could be developed to require new buildings or additions to be placed on fill material or elevated to avoid frequently recurring flooding. Also, building codes could specify "water-tight" construction with provisions for doorways and windows to be closed at flood times to keep water out of the structure. Building codes could be modified to require all new habitable additions or redevelopment of buildings in flood prone areas be constructed to be safe from future flooding and not endanger life. Sanitary codes could be initiated to prevent sewer backups causing back flooding in residences or other buildings. Sanitary codes could prohibit

new service hookups in flood prone areas and reinforce the effectiveness of zoning ordinances. Flood forecast and warning systems could be developed to warn existing residents of potential floods and allow evacuation of hazard areas. Tax incentives can be used to charge flood plain residents for the higher cost of providing periodic rescue and emergency work. If tax structures allowed increased rates on flood prone areas, it would help direct new development to lower taxed, flood free areas. Financial institutions could prohibit loans to developers, contractors and mortages for new homes and other structures in flood prone areas.

Flood plain management techniques include the floodproofing of existing buildings and other property. Floodproofing might include construction of water tight seals in building doorways, windows, and walls and raising inhabitable buildings so floodwaters will not inundate valuable property or threaten loss of life. Floodproofing could also include the physical moving of buildings out of flood prone areas. Flood insurance (51) provides flood plain inhabitants an opportunity to have insurance to cover losses that may occur due to flooding. Flood insurance does not provide a solution to the problem but will spread the cost of a disaster over many years. In eligible communities, existing residents may obtain subsidized flood insurance. Flood plain studies and mapping are an effective management tool to determine potential flooding areas. Publication of study results allows individuals, groups, and businessess to assess the inherent risk of further development in flood prone areas. Flood plain mapping would allow government agencies (52) to assess flood risk in the implementation of ongoing or newly authorized programs. Public purchase of frequently flooded areas involves outright purchase or exchange of title from private landowners to public agencies. Such government-owned flood areas would be managed for land use compatible with the flooding nature of the land. Government-owned flood plains might be used for nature areas, wildlife habitat, recreation areas, low intensity agricultural uses, and open space. Land treatement measures consist of vegetative plantings of native or adapted species of grass or shrubs to control erosion and reduce floodwater runoff. Diversion of surface waters around critically eroding areas is another land treatment measure needed to control excessive erosion on flood plain lands. And finally, flood plain management measures may include structures such as dikes, or levees around individual properties. Individual dikes and levees have the inherent problems of encouraging false security and eventually may contribute to greater flood damage potential.

The land use and flood plain management alternative would be effective in reducing the future increase of flood losses. More importantly, a false sense of security would be avoided and unwise flood plain land use would be discouraged. Structural flood control measures are of limited value in preventing damage from rare and extremely severe floods. Flood plain management is effective in preventing needless increases in flooding losses. Land use and flood plain management would not be effective in reducing losses caused by fire, wind, tornado, earthquake and other non-flood natural forces causing a disaster.

Implementation of land use and flood plain management would require coordination and cooperation of many federal, state, and local units of government plus residents, interested groups, and organizations. Approximately 45 federal agencies are involved in land use and management programs. Each sovereign state and its subdivisions have authority to control land use and management programs. Each sovereign state and its subdivisions have authority to control land use and management of private lands. Many of the land use and management measures discussed are highly controversial and have little public support. Many citizens view land use management as an individual right not to be assumed by government at any level.

The Soil Conservation Service provides technical assistance in helping landowners, operators, groups, organizations, and all units of government in land use management. Through the National Cooperative Soil Survey, land resource data are assembled, analyzed, and reported in a published soil survey. Specific assistance is given to interpret soil survey resource data for land use management applications. The Soil Conservation Service provides technical assistance to conservation districts. Private landowners and operators are eligible to obtain the land use management technical assistance by becoming a cooperator with a conservation district. Land use management is an integral consideration in federally assisted programs being administered by the Soil Conservation Service.

The concept of land use and flood plain management to prevent the ever-increasing severity of flood disasters, in a strict interpretation, does not apply to emergency measure installation. Emergency measure installation is the timely assistance required after a flood or other natural force to relieve the imminent potential flooding and erosion hazards created by the disaster. To the extent that non-structural and management measures contribute to the assistance and will remove the threat of flooding from the impaired watershed, such measures are eligible for emergency assistance. The Soil Conservation

Service endorses the concept of land use planning as a solution to the ever-increasing flooding problem. Technical and financial resources will continue to be available to provide assistance to meet these desirable goals.

Potential environmental impacts related to a long-term program of land use and flood plain management appear beneficial. Flood plain land use would be managed to avoid additional developments and thus would prevent future increases in flood damage. To the extent feasible, present developments in flood prone areas would be protected or encouraged to relocate in flood free areas. Future land use of flood plains would be managed to be compatible with its flooding nature. Existing wildlife habitat would be protected.

An adverse impact would be the necessary compensation society would make to existing flood plain landowners or operators in exchange for limitations imposed on the flood plain land use. Another adverse impact is that future developments may be encouraged in areas with other severe resource limitations such as high soil erosion potential, steep topography, lack of utilities, and lack of transporation access. All such limitations could be overcome but such solution will create its own set of undesirable environmental impacts.

5d. Increased funding of emergency assistance

The existing emergency assistance could be expanded to adequately protect watersheds suffering a sudden impairment resulting in endangering lives and property. Funds could be made at either some arbitrary higher level of several million dollars or by establishment of a deficit spending authority. In either case, immediate and adequate emergency assistance would be available.

This alternative of expanded funding would eliminate or reduce the need to seek supplemental appropriations each time a large-scale disaster occurs. Delays in implementing emergency measures sometimes reduce the effectiveness, increase the cost of the measures, and cause disaster victims to be vulnerable to recurring floods.

Expanded funding of emergency assistance would increase the net beneficial impacts. The Secretary of Agriculture would have sufficient funds to implement emergency assistance immediately.

5e. Existing emergency measure installation without channel modification measures

An alternative to emergency measure installation could consist of emergency vegetative and structural measures such as used during existing emergency assistance except that debris and sediment removal, streambank stabilization, and open channel measures would be excluded. This alternative would reduce excessive erosion on areas devoid of vegetation by fires, floods, or other natural forces causing a sudden impairment of a watershed.

Continual sediment production from exposed streambanks would not be reduced and the resulting degrading of downstream habitat would not be stopped.

Safeguarding of lives and property would not be provided as streams, bridges, or culverts plugged with sediment and debris would not be cleared to carry the normal flow. Flood victims would continue to live with increased flooding of their property and increased threat to loss of lives. Rerouting of traffic on flooded highways would delay transportation. Streams clogged with sediment and debris will eventually seek a new water course which may consume developed property. Some victims of increased flooding in the post-disaster condition will seek new residences in flood-free areas. Wildlife habitat in flood-free areas will be encroached as flood-free lands would be used more intensively for homes, farm enterprises, and places of business.

This alternative would result in inadequate stream capacity which could result in much greater flood damages caused by normally expected streamflow. Benefits obtained by not modifying the stream would be offset, to a certain degree, by the greater flood hazard following subsequent storms. This alternative would not enhance wildlife values where habitat values have already been degraded by natural forces and are in the process of recovery.

6. Consultation with appropriate federal agencies and review by state and local agencies and public involvement

The draft environmental statement was sent to the following federal departments and agencies: Department of the Army; Department of Commerce; Department of Health, Education and Welfare; Department of the Interior; Environmental Protection Agency; Department of Transportation; Department of Housing and Urban Development; Advisory Council on Historic Preservation; Federal Power Commission; and Council on Environmental Quality. Copies of the draft environmental statements were sent either to the Governor or the designated state agency acting as the clearinghouse in all fifty states plus the Commonwealth of Puerto Rico. Draft environmental impact statements were furnished to the Natural Resources Defense Council, Friends of the Earth, Environmental Defense Fund, National Wildlife Federation, and National Audubon Society. In addition to the above distribution, 27 individuals, groups, organizations, or agencies requested and were furnished copies of the statement.

The Soil Conservation Service published a notice of availability of the draft environmental impact statement in the April 15, 1974 issue of the Federal Register. In total, nearly 500 copies of the draft statement were distributed to individuals, groups, and agencies for review and consultation.

6a. Response to comments on the draft environmental impact statement

Letters of comment concerning the draft environmental impact statement were received from each of the following agencies, organizations, or individuals:

Federal Departments or Agencies

- Environmental Protection Agency
- Department of the Interior
- National Marine Fisheries Service (comments included with the State of Alaska)
- Department of Defense, Office of Civil Defense (comments included with the State of Hawaii)
- Department of Housing and Urban Development
- Department of Health, Education and Welfare
- Department of Commerce
- Federal Power Commission
- Forest Service
- Extension Service (comments included with State of Kansas)

State Departments or Agencies

Alaska, Office of the Governor with comments by

- Department of Community and Regional Affairs
- Department of Environmental Conservation
- Department of Natural Resources
- Alaska State Clearinghouse

Arizona, Office of Economic Planning and Development with comments by

- Arizona State Clearinghouse
- Agriculture and Horticulture Department
- Southwestern Minerals Exploration Association
- Office of Arid Land Studies
- Indian Affairs Commission
- Arizona Power Authority
- State Liaison Office, AORCC
- Department of Highways
- Arizona Bureau of Mines

- Department of Anthropology
- Department of Economic Security
- Department of Law, Civil Rights Division
- Department of Land
- Arizona Game and Fish Department

Arkansas, Department of Planning with comments by

- State Planning and Development Clearinghouse
- Arkansas Game and Fish Commission
- Arkansas State Board of Health

California, Resources Agency of California with comments by

- Office of Intergovernmental Management (State Clearinghouse)
- Department of Commerce
- Department of Conservation
- Department of Fish and Game
- Department of Food and Agriculture
- Department of Parks and Recreation
- Department of Water Resources
- Reclamation Board
- State Water Resources Control Board

Colorado, Division of Planning with comments by

- Colorado State Clearinghouse
- Department of Local Affairs
- Division of Wildlife

Connecticut, Department of Environmental Protection

Florida, Department of Administration with comments by

- Department of Natural Resources
- History and Records Management
- Department of State
- Department of Transportation

Hawaii, Department of Planning and Economic Development

Idaho, State Planning and Community Affairs Agency with comments by

- Idaho Fish and Game Department
- State Soil Conservation Commission
- Department of Highways

Indiana, Department of Natural Resources

Iowa, Office for Planning and Programming

Kansas, Department of Administration with comments by

- Division of Water Resources
- Forestry, Fish and Game Commission

Kentucky, Department of Natural Resources and Environmental Protection with comments by

- Division of Air Pollution
- Department of Fish and Wildlife Resources

Louisiana, State Soil and Water Conservation Committee

Maryland, Department of State Planning with comments by

- Department of Natural Resources
- Department of Transportation
- Maryland Department of Agriculture

Mississippi, Office of the Governor

Missouri, Department of Community Affairs with comments by

- Missouri Geological Survey and Water Resources
- Missouri Department of Conservation

Montana, State Clearinghouse with comments by

- Department of Fish and Game
- Soil Conservation Bureau
- Agriculture Wastewater Specialist

Nevada, Office of the State Planning Coordinator

New Hampshire, Fish and Game Department

New Jersey, Department of Community Affairs

New Mexico, with comments by

- State Planning Office
- State Engineer Office
- Natural Resource Conservation Commission

New York, with comments by

- Department of Agriculture and Markets
- Department of Environmental Conservation
- New York State Soil and Water Conservation Committee

North Carolina, Department of Administration with comments by

- Department of Natural and Economic Resources
- Department of Human Resources
- Department of Agriculture

North Dakota, State Planning Division

Ohio, Environmental Protection Agency with comments by

- Department of Natural Resources
- State Clearinghouse

Oregon, Office of the Governor with comment by

- Soil and Water
- Forestry
- Lands
- Fish Commission

Pennsylvania, Governor's Office of the Budget with comments by

- Department of Environmental Resources

Commonwealth of Puerto Rico, Department of Natural Resources

Tennessee, Office of Urban and Federal Affairs with comments by

Tennessee Wildlife Resources Agency

Texas, Office of the Governor with comments by

- Texas Parks and Wildlife Department
- Texas Water Rights Commission
- Texas Water Development Board
- Texas State Soil and Water Conservation Board
- Texas Water Quality Board
- Texas Air Control Board
- Texas Highway Department

Utah, State Planning Coordinator with comments by

- State Environmental Coordinating Committee

Vermont, Office of the Governor with comments by

- State of Vermont Flood Recovery Office
- State Planning Office
- Agency of Environmental Conservation
- Fish and Game Department

Virginia, Office of the Governor with comments by

- Division of State Planning and Community Affairs
- State Water Control Board
- Department of Health
- Game and Inland Fisheries
- Marine Resources Commission
- State Air Pollution Control Board
- Virginia Institute of Marine Science
- Soil and Water Conservation Commission
- Commission of Outdoor Recreation
- Department of Agriculture and Commerce
- Conservation and Economic Development

Wisconsin, Department of Administration with comments by

- Department of Natural Resources

Private Organizations and Individuals

- Natural Resources Defense Council, Inc.
- The Izaac Walton League of America
- Environmental Policy Center
- Trout Unlimited
- Float Fishermen of Virginia
- Chesapeake Bay Foundation
- Newton H. Ancarrow

- J. D. Perdue
- Purchase Area Development District (comments included with the Commonwealth of Kentucky)
- North Dakota Wildlife Federation, Inc., (comments included with the State of North Dakota)
- Addison County Regional Planning and Development Commission (comments included with the State of Vermont)
- Vermont Natural Resources Council (comments included with the State of Vermont)

Comments were received from 10 federal departments or agencies, 131 state agencies representing 35 states, 2 individuals, and 10 local or private organizations. Recommendations contained in the letter of comments generally support the present administration of emergency measure installation and are summarized in the following table.

RECOMMENDATIONS FOR REVIEWERS FOR CHANGES

	Percent
Agreed with the present administration	76
Should have expanded funding	5
Should have complete flood protection	1
Flood plain management should be used	10
Existing program without channel work feature	3
Existing program with other modifications	1
"No program" or terminating emergency assistance	4
Total	100

Some general observations of the comments made on the review of the draft environmental impact statement are appropriate. Many reviewers apparently misunderstood the intent of Soil Conservation Service emergency assistance as authorized by Section 216 of the Flood Control Act of 1950. The intent of the assistance is to install erosion control and floodwater retarding measures on areas suddenly impaired to prevent future flood damages or soil erosion as may be caused by remnant conditions caused by a disaster. Thus, emergency

assistance is vastly different from emergency assistance which may be authorized by other agencies. In order to clarify this apparent misunderstanding, the text of the final EIS has been changed to be more definitive of terminology specifically associated with language in the authorization. Also, the first few comments and responses relate to definitions of words commonly used in providing emergency assistance. Readers are asked to note that some terminology used throughout the environmental impact statement may have a unique meaning that applies only to emergency assistance as authorized. We regret confusion that use of such words as "emergency," "safeguarding of life and property," and "sudden impairment" may have had, but the use of these words is consistent with the authorization.

Another area where reviewers apparently misunderstood is relative to agency policy as contained in Watersheds Memorandum 124 (Rev. 1) issued July 24, 1974. The memorandum evolved to assure that emergency assistance would be consistent with the authorization.

Many reviewers of the draft environmental impact statement made similar comments. To assist readers and to reduce duplication of the responses, we have summarized the comments. All comments received are contained in Appendix D of the final environmental impact statement.

6b. Comments related to program definitions

Comment: A need was expressed for a definition of the terms or phrases such as "a sudden impairment of a watershed," "disaster," "emergency," "flood," and "safeguarding lives and property" to better understand emergency measure installation.

Response: A sudden impairment is an abrupt injury to the watershed physical condition caused by a fire, flood, wind, tornado, earthquake, landslide, or other natural force. Injury to the watershed may include removal of vegetative cover, sediment and debris accumulation, exposing streambanks to erosion forces, and development of gullies.

Disaster is a great and sudden catastrophe as caused by the "sudden impairment of a watershed." Disasters may include local, regional, statewide, multiple state, or national occurrences. To the extent that funds are available, both large and small area disasters are eligible for federal assistance to install emergency measures as authorized by Section 216 of the Flood Control Act of May 17, 1950.

Emergency indicates the need for early correction of physical damage to the natural pre-disaster landscape so as to preclude further, even more extreme damage if a subsequent storm event were to occur in the damaged area.

A flood is the accumulation of water onto lands not usually submerged. Floods include the occasional inundation of lands from water overflowing established stream courses, by water falling directly on the submerged land, and by water impounded by obstructed flowage.

Safeguarding lives and property is the eligibility condition for installation of emergency measures. Safeguarding of lives implies the protection of lives from floods and other remnant impacts caused by the sudden impairment of a watershed. Safeguarding property is the protection of development, public facilities, and land resources subject to destruction or injury following a disaster.

Comment: Droughts and Dutch Elm disease should be eligible for emergency assistance.

Response: Both droughts and Dutch Elm disease are relatively long-term events and will not meet the qualification of "sudden impairment." Other agencies such as the Agricultural Stabilization and Conservation Service of the Department of Agriculture or the Federal Disaster Assistance Administration of the Department of Housing and Urban Development should be contacted for assistance following a drought. The Forest Service of the United States Department of Agriculture should be contacted concerning Dutch Elm disease.

Comment: Is it proper to prevent a disaster as opposed to rectification after the disaster has occurred?

Response: If disasters were truly preventable, concerted effort should be made to prevent further loss of life and property associated with disasters. However, a disaster is often caused by extreme forces of nature far in excess of man's ability to control. Society is able to monitor and control some aspects of disasters, but for the most part, disasters are beyond mankind's ability to prevent. Long-range planning may develop permanent solutions through structural protection or land use management, but existing hazardous conditions must be rectified.

6c. Comments related to coordination with other agencies

Comment: The need to coordinate emergency measure installation work with local, state, and federal agencies as well as citizens organizations, and groups with special expertise should be

emphasized. Coordination should be mandatory. Also, it was pointed out that several states require permits prior to installing channel work measures. Commentors asked that as much prior notice as possible be given before proceeding with emergency measure planning and installation.

Response: The Soil Conservation Service strongly encourages participation and coordination of local, state, and federal agencies, groups, organizations, and citizens. State and local agencies acting as emergency measure sponsors represent the viewpoint of nonfederal interests. Many emergency measure sponsors are organizations or units of government requiring elected officials. The Fish and Wildlife Service and Environmental Protection Agency are the only agencies specifically mentioned in the memorandum (Appendix B). Emergency measure installation may involve various emergencies ranging from reseeding of critical erosion areas to the repair of damaged water resource structures which, if left unrepaired, could fail and cause serious loss of life and property. Coordination is commensurate with the size and complexity of the proposed emergency measure. Reseeding of critical erosion areas involves expertise of agronomic and environmental sciences while the repair of a water resource structure involves these plus state regulatory agency(ies), water resource agencies, historical, archaelogical or other expertise. The present guidelines allow the flexibility to meet the various emergency conditions likely to occur. The Soil Conservation Service (SCS) can only encourage interested persons, groups, or agencies to participate in emergency measure installation work. If the person, group or agency is so inclined not to participate, the SCS does not possess nor seek authority to force mandatory cooperation. Whenever permits are required by state statutes, such permits are obtained by sponsors before emergency measure installation can proceed. Because of the timeliness of installing emergency measures, notice of work is often brief. Emergency work such as removing debris to reduce flood hazards or repair of damaged structures must proceed without delay. Where feasible, work is delayed to give individuals, groups, or agencies as much prior notice as possible. Readers are referred to the July 22, 1974, letter of comment from the State of Maryland, Department of Natural Resources; and the June 10, 1974, letter of comment from the New York State Soil and Water Conservation Committee (Appendix D) for a candid appraisal of coordination efforts which have been carried out between the SCS and the respective state agencies.

Comment: Interaction and coordination of SCS and other federal agencies with "emergency programs" should be included in the final environmental impact statement.

Response: Coordination with other federal agencies administering "emergency programs" is referenced in both Section 1f of the final environmental impact statement (EIS) and in the memorandum (Appendix B, pages 3 and 6). Coordination efforts are initiated immediately after a disaster and continue through completion of emergency assistance. Coordination efforts vary depending upon the scale of the disaster. For example, in a local disaster such as a forest fire involving National Forest land and private forest land in a single upstream watershed, coordination efforts by SCS would be needed to determine which federal agencies will be providing assistance. Often assistance in such occurrences is limited to that offered by the U. S. Forest Service and by the affected state forest agency. Coordination in such emergencies is usually limited to the Forest Service, State forest agency, Environmental Protection Agency, Fish and Wildlife Service, natural resource organizations, or groups with interest or expertise in the affected area, and the landowners or victims of the disaster. As disaster events grow larger in scale, the coordination efforts likewise increase. The Federal Disaster Assistance Administration, HUD, is the responsible federal agency for coordination in all occurrences declared national disaster areas. Whenever emergencies involve larger watersheds or streams in populated urban areas, coordination with U. S. Army, Corps of Engineers and the Federal Disaster Assistance Administration is maintained to avoid duplication of assistance. Assistance to individual landowners or operators, if carried out by the U. S. Department of Agriculture, would be administered by the Agricultural Stabilization and Conservation Service or by the Farmers Home Administration. As the scale of emergency assistance increases, it is necessary to include renewed coordination efforts with environmental, archeological, historical, and cultural interests.

Comment: Coordination efforts should include determination of long-term impacts, consideration of archeological and historic sites, on-site inspection of channel work, and sending periodic reports to nonfederal natural resource organizations.

Response: Emergency assistance is the timely help to restore or reinstate the essential needs and to prevent the accelerated soil erosion or amplified flooding which may be caused by a naturally impaired watershed and is characterized as short-term assistance. Installation of emergency measures usually involves

work on existing water resource structures or installing land treatment type structures which are associated with a minimum impact on archeological and historical resources. All statutes related to federally assisted programs and archeological and historical resources are observed while providing emergency assistance. Inspection of emergency measures is consistent with construction industry standards for installation of similar practices. If a federal contract is used as the vehicle for emergency measure installation, a government representative is appointed to inspect installation to meet contract specifications. Assistance from other federal, state, and local agencies or natural resource organizations is welcomed. Information related to emergency assistance available to the SCS is also available to the public. Periodic reports as agreed upon by the state conservationist and the state agency overseeing emergency work will be made and sent to agencies and groups cooperating in emergency measure installation.

6d. Comments related to policy changes

Comment: Emergency assistance should have an analysis of overall effects in the post-disaster condition. Based on the overall assessment, an emergency assistance plan can be tailored to fit individual areas. With a given disaster area, some areas may require land use management, other areas structural measures, and still other areas no assistance would be appropriate.

Response: We concur. The designated state agency for emergencies along with the Federal Disaster Assistance Administration are the most appropriate agencies to formulate an overall disaster assistance plan. Our policy guidelines encourage other agencies to take leadership in making the overall assessment. In smaller limited area disaster events, the SCS provides leadership in overall assessment in cooperation with other agencies, groups, and individuals.

Comment: SCS should adopt strict procedures for emergency assistance and adhere to the guidelines.

Response: We agree. Prior to November 1972, emergency measures were installed for the purpose of safeguarding lives and property according to individual procedures established

by state conservationists and consistent with the Flood Control Act of 1950 and in coordination with other agencies and organizations. As expected, there was a great deal of variation in emergency measure eligibility and installation. After reviewing emergency work installed, a national memorandum was established on November 9, 1972, setting uniform criteria for emergency work. National criteria was further strengthened when Watershed Memorandum-124 (Rev. 1) was issued July 24, 1973, (Appendix B). Emergency work currently being installed is in accordance with the guidelines.

Comment: The project log, attachment 3, to Watersheds Memorandum-124 (Rev. 1, Appendix B), should be revised to include work applied for, work on which surveys are being made, work on which surveys are completed, planning work underway, planning work completed, construction underway, construction completed, and priority needs.

Response: The project log and its associated narrative is an internal SCS management element to assist in emergency assistance and to inform others of progress. The project log is available for inspection in the applicable state conservationist's office. The log contains data essentially as suggested. Such topics as project name, location, date the application for assistance was received, date the project was approved for emergency assistance, data invitation for construction installation contract was made, date contract was awarded, date contract is completed, type of emergency work, and uncategorized remarks are some of the items contained in the project log.

Comment: Pre-disaster activities and guidelines should be strengthened. Some items to consider are the pre-disaster planning to assure proper expertise is available in the agency; identify responsible employees prior to a disaster; develop expeditious reporting forms such as kind of disaster, nature of problem, and what emergency assistance is needed; and pre-disaster coordination to develop areas where management measures would be preferred to structural measures.

Response: Soil Conservation Service expertise consists of soil conservationists, soil scientists, agronomists, biologists, economists, engineers, woodland specialists, hydrologists, range conservationists, grassland conservationists, geologists, environmental specialists, and others. Disciplines such as those mentioned are located in each state and Carribean Area and are available for participation in emergency assistance.

State conservationists have been delegated authority to install emergency measures. Each state with responsibilities for emergency assistance has a memorandum further specifying duties and responsibilities for providing the assistance.

A precise reporting form has been purposely avoided because of the great variety of disasters and potential degrees of emergency assistance that may be needed. In order to expedite assistance, Watershed Memorandum-124 (Rev. 1) (Appendix B, pages 4 and 5) points out 15 items that may be suitable to investigate and report upon when requesting emergency assistance. These items include identification of the impaired area, cause of disaster, location, map, description of damages, estimated emergency assistance needed, environmental impact, sponsor, coordination, and estimated cost.

Each state conservationist has cooperated with the state agency designated by the Governor to manage emergency assistance concerning procedures to follow if and when a disaster should occur. The Federal Disaster Assistance Administration, HUD, is responsible for coordination of federal assistance in declared national disaster areas. SCS cooperates with the state and other agencies to the fullest extent possible in providing timely emergency assistance.

Comment: In order to overview the logical sequence of emergency measure installation, a statement of priorities is needed to make the rules, criteria, and standards for priorities understood.

Response: The criteria for selecting priorities are accomplished in the following manner. An inventory is made to determine the needs for emergency assistance including type and extent of measures required to safeguard lives and property. Such an inventory would include estimated costs of installation. Priority criteria is the selection process of fitting the available resources of money, manpower, and equipment to best meet the urgent needs. Historically, emergency measure funds available are less than amounts needed. Manpower is a limiting factor as contractors are busy with cleanup work following a disaster and have little reserve for additional work and laborers are scarce because of the multiple urgent jobs competing for their services. SCS requests the designated state agency or local agency to assist in matching the priority criteria to give the most satisfactory emergency assistance with the limited resources available.

Comment: Building a dam to flood a gully should be deleted as a gully stabilization measure.

Response: In unique soil conditions the only physical way to stop an active gully is by inundating the gully head. Gullies are formed by water dropping over the gully head and in the process creating a severe erosion condition. If it is impractical to divert the flow of water around the gully or to control the drop of the water at the gully head, the most satisfactory solution is to inundate the gully head.

Comment: Sponsoring organization qualification should be changed to allow environmental interest organizations to become a sponsor of emergency measures.

Response: Any group including those representing environmental interests which have an organization as described in the following quotation from SCS Watershed Memorandum-124 (Rev. 1) issued July 24, 1973, (See Appendix B) may be a sponsor of an emergency measure.

> "Emergency work on nonfederal land is to be sponsored by a local or state organization, such as a conservation district or a county, town, or state agency. As a condition to receiving assistance, the sponsoring organization is to have authority, is to agree to provide needed land rights, water rights, and permits and to accept responsibility for operation and maintenance, if required, all without cost to the emergency watershed protection funds."

Comment: Whenever easements are obtained for emergency assistance, access should be maintained for public recreation purposes.

Response: It is desirable to maintain public access for multiple purpose use. However, it would be extremely rare that an emergency measure would provide public recreation benefits. In emergency assistance work, the sponsors obtain permission from landowners for access to install and, if needed, maintain the emergency measures. The access permission for emergency work is commonly donated to the sponsor by landowners and is consistent with Section 2000 of the Soil Conservation Service Administrative Services Handbook. Section 216 of the Flood Control Act of May 17, 1950, (Appendix C) does not provide authorization for federal funds to be used for purchase of land rights.

Comment: The minimal degree of impairment of watershed to be eligible for emergency assistance should be defined. The time frame for planning, review, and application should be included. Also, land rights acquisition procedures should be discussed.

Response: The minimal degree of impairment to a watershed to be eligible for emergency assistance occurs whenever the remnant conditions left by the disaster can be documented as being potentially hazardous to lives and property. Watersheds Memorandum-124 (Rev. 1) issued July 24, 1974, (See Appendix B) requires documentation of need for emergency assistance prior to authorization to use emergency funds.

There is no specific time frame for planning, review, and application of emergency measures. Coordination in planning, review, and installation is commensurate with the urgency of the disastrous situation. Land rights are obtained by sponsors and are consistent with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Public Law 91-646).

Comment: More emphasis should be placed on dam failure. Erosion and sediment aspects of a sudden dam failure does not appear to be adequately treated.

Response: We agree. Sections 1e and 2e of the final EIS have been revised to include description and impacts of a sudden dam failure.

6e. Comments related to funding procedures

Comment: There appears to be little overhead for emergency measure construction inspection and much discretion is left in the hands of the contractor. Control of emergency work should be strengthened and, if needed, additional federal funding should be used to provide adequate construction inspection.

Response: Emergency measure installation presents a dilemma for federal, state, and local sponsors. Limited funds are approved for emergency assistance and sponsoring organizations must recommend priority of work. Often sponsors recommend all funds be used for immediate emergency installation, but federal control is maintained to insure that sufficient resources are available to provide inspection services.

In federally contracted emergency assistance, construction inspection is maintained at levels commensurate with the technical requirements for similar practices installed under other programs. Soil Conservation Service can obtain additional funds for emergency assistance only through the supplemental appropriation procedure.

Comment: The $300,000 level of funding appears to be too low to allow a quick and adequate emergency assistance response. The supplemental appropriation process is too slow to be effective in providing timely assistance.

Response: The $300,000 level of funding has been adequate whenever relatively small disasters have occurred. Since 1969, there has been a sequence of large regional disasters requiring large sums of money for emergency assistance. The supplemental appropriation process limits the timeliness of emergency assistance following such large scale disasters. A delay of two months to one year after the disaster has occurred in obtaining supplemental funds. More timely assistance could be provided if a funding level greater than $300,000 were available. A large readily available fund is especially urgent following large scale disaster events such as hurricanes or flooding over a large area of the country.

Comment: A clarification of the annual limitation and funding of $3,000 in any locality is needed.

Response: Appendix C is the 1970 Edition of Title 33 USC 701b. Section 1f of the final EIS has been modified to include a legislative history of emergency assistance presently authorized. The present authorization limits emergency funding to $300,000 annually nationwide and removes the limit that can be used in any one locality.

Comment: An estimate of the adequacy of allocated funds and the impact of insufficiency should be included.

Response: The $300,000 level of funding has been adequate whenever local disasters have occurred. Since 1969, there has been a sequence of large scale disasters which have required supplemental appropriations to provide adequate emergency assistance. See the table in Section 1f for a list of supplemental appropriations. Fund insufficiency to promptly install extensive emergency measures has an impact similar to that discussed in the "no program" alternative in Section 5a of the final EIS.

Comment: Because of the severe limitations of funding, higher selectivity and timely execution need to be emphasized. Some remedial action such as increased annual funding, transfer of funds from other accounts, or use of revenue sharing funds should be recommended to avoid costly delays and to provide emergency assistance.

Response: We concur that both high selectivity and timely execution of emergency assistance are important. Our policy guidelines contained in Watersheds Memorandum-124, (Rev. 1) issued July 24, 1973, and attached as Appendix B is to provide the timely execution and selectivity. Alternative 5d of the final EIS assesses the impact of increased funding. Costly delays would likely be avoided through an increase in funding. Federal agencies cannot transfer funds from other appropriations without specific authority. Also, federal agencies cannot recommend use of revenue sharing funds.

Comment: An explanation of emergency funding procedures and adverse impacts that may be created by the rush to spend prior to the fiscal year end should be discussed. If fiscal year carryover procedures apply, they should be included. Has there been executive impoundments of emergency funds in the past?

Response: The regular funds for emergency measure installation consisting of up to $300,000 annually is available for one fiscal year. Any funds not needed for emergency measure work become available for regular work in flood prevention projects (Public Law 78-534). Supplemental appropriations are available only for emergency assistance and are carried forward until expended for this purpose. Thus the larger supplemental appropriations permit a more orderly application of emergency measures. To date, there has been no impoundment of emergency measure funds.

6f. Comments related to land use and flood plain management

Comment: Land use and flood plain management measures as presented in alternative 5c (beginning on page 22 of the March 1974 draft EIS) were not accurate. Suggested changes include the following: relocation of flood prone residents should be a favorable impact; reviewing potential impacts of flood plain management in additional detail; flood plain management would ultimately reduce the need for rescue and emergency work; in some cases, agricultural use is compatible with recurring flooding; land use mangement is not a true alternative for emergency work but is a flood reduction solution; installation

of structural flood control measures estalbishes a false sense of security for residents and leads to unwise flood plain use; SCS should provide data on flood plain resources; flood plain management should protect existing developments and discourage future developing of flood prone areas; the draft EIS is inconsistent with Executive Order 11296 and the National Flood Insurance Act; land use management has little public support; and tax incentives should be considered as a flood plain land use management tool.

Response: We concur and have revised the entire alternative 5c in the final EIS. In addition to the comments made, we have considered directives and authorizations as applicable to the emergency measure installation including Executive Order 11296 issued August 10, 1966; Federal Water Pollution Control Act Amendments (PL 92-500); National Flood Insurance Act (PL 93-234); Water Resources Development Act (PL 93-251); and Disaster Relief Act (PL 93-288). Information presented at the National Conference on Flood Plain Management held July 23 thru 25, 1974, is also incorporated into the revised discussion of alternative 5c.

Comment: The need to replace agricultural production land in upland areas when agriculture exists in unprotected flood plains is questioned. Some reviewers believe that agriculture is a compatible flood plain land use.

Response: We agree with qualifications that some agricultural uses are compatible with flood plain land use. Agricultural land has various levels of investment. Therefore, risk does exist if there is potential for flooding. High value crops such as vegetables, tobacco, cotton, and other similar agricultural uses concentrate investment in limited areas and such uses are not considered compatible with flood plain land use. However, range, pasture, or other lower value crops may be compatible with the flooding nature of flood plains. Section 5c of the final EIS has been revised to discuss the compatibility of agriculture land use on flood plain areas. The draft EIS presented a theoretically static condition of agricultural supply and demand. That is, in order to produce a given output it is necessary to maintain the production base. Under this theoretical condition, a unit of lost agriculture production would ultimately need to be replaced in another location. This theory does not reflect the dynamic situation of actual supply and demand. In the world of continuously

changing agricultural exports, production changes caused by climatic fluctuations and productivity, and changes in consumer preferences for agricultural products, the simplified assumption does not reflect pressures in a locality or even statewide. However, from a national viewpoint, the theoretical supply-demand assumption is valid. A unit of lost agriculture production will need to be replaced in order to maintain the supply of agricultural commdoties.

6g. Comments related to vegetative measures

Comment: Revegetation of denuded areas is an excellent emergency measure and should be considered as an increment in emergency assistance.

Response: We agree. Establishment of vegetative cover is the first consideration in erosion control and in watershed protection aspects of emergency assistance. The final EIS has been reworded to strengthen establishment of vegetative covers as the first element in emergency assistance for erosion control and land stablization.

Comment: Emergency measure installation should include establishment of vegetative cover on damaged streambanks.

Response: We concur. Establishment of vegetative cover on eroded and damaged streambanks is the first consideration. Of course, the natural vegetation was washed away during the disaster event. Depending upon the expected stream flow velocity and the position of the damaged streambank relative to a bend in the stream, it may be necessary to use gabions, rock riprap, sheet piling, or other measures to prevent serious erosion. Wherever possible, vegetative cover is established.

Comment: Trees and shrubs should be used in vegetating damaged streambanks.

Response: The most effective immediate erosion control vegetative cover is grass as it provides a dense growth over the exposed streambank. Shrubs and trees are effective in the long-term reduction of streambank erosion but require extended periods of time for growth.

Comment: In arid regions establishment of vegetation is difficult. Alternative measures should be considered for erosion and sediment control.

Response: We agree. Section If of the final EIS, has been modified to reflect establishment of vegetative cover and potential alternatives. Emergency measures are planned and installed in accordance with the SCS field office Technical Guide which is specifically adapted to local climatic, topography, soils and other resources. Alternative measures proven successful in controlling erosion and sediment are included in the Technical Guide.

Comment: Assuming the streambank was vegetated prior to a disaster, the favorable impact shown in Section 2c, page 15 of the draft EIS is improper. Establishment of vegetative cover would only replace wildlife habitat existing prior to the disaster event.

Response: We agree. The impact has been modified to indicate that establishment of vegetative cover on exposed streambanks would replace wildlife habitat existing prior to the disaster. Of course, using the conditions of the post-disaster environment as a basis for discussion, an emergency measure which establishes vegetative cover would reflect as an increase in the wildlife habitat.

Comment: The State Forestry Agency should be delegated authority to perform revegetation of forested lands.

Response: To the extent that prior approval of emergency installation has been reached, state agencies may be reimbursed for eligible emergency measure work installed on state and private forest lands.

Comment: The statement should include a discussion of the type of vegetation considered for erosion control, planting techniques, type and amount of fertilizer, interagency coordination related to revegetation, and the effectiveness of revegetation in reducing erosion in the early and intermediate growing stages.

Response: The type of vegetation desirable for erosion control is an adapted species with quick growing and dense pattern characteristics. Specific recommendations for vegetative species, planting

techniques, and fertilization are contained in the SCS field office Technical Guide. Information in the Technical Guide is kept current and reflects consultation with the USDA Agricultural Research Service, universities, and agronomists. Practices and species successful in each county reflect climate, topography, and soils resources. Readers interested in specific recommendations for given areas are referred to the Technical Guide which is available for inspection in each SCS field office.

Interagency coordination prior to planting or establishing vegetative cover is consistent with Watershed Memorandum-124 (Rev. 1) attached as Appendix B. Sponsors consisting of a local organization, the Environmental Protection Agency, the Fish and Wildlife Service, and interested natural resource group(s) are strongly encouraged to participate in planning emergency assistance. We do not have authority to force groups to participate.

Vegetation will have various degrees of effectiveness in reducing erosion throughout its growth. Newly emerged vegetative seedlings are relatively ineffective in reducing erosion. As plants grow, they become more and more effective until they reach maturity when the maximum erosion control potential is realized. In situations requiring immediate erosion control, it may be necessary to use organic or synthetic mulches until the vegetation is established.

Comment: Establishment of vegetative cover suitable for grazing should be encouraged and considered as a beneficial impact.

Response: We agree that establishment of vegetation suitable for grazing would have beneficial impacts. Eligible emergency measures would include these quick growing annual or perennial species used to reduce erosion. Often the same vegetative species are used for grazing. However, grazing may have to be controlled to protect the critical erosion area.

Comment: A series of design sketches should be included to convey a better understanding of how damaged stream areas are to be stablized and revegetated.

Response: Some example drawings of streambank stabilization measures and vegetation are included. (See Figures 2 and 3.) These drawings are not intended to be examples of ideal work. Streambank stabilization and vegetation measures must vary in every topographic, climatic, and soils resource region of the country.



Figure 2 SPOIL BANK DEVELOPMENT FOR WILDLIFE HABITAT



FEATURES

1. Natural meander pattern.
2. Spoil was spread into the cropland.
3. Desirable trees left in place at points of interest.
4. Wildlife plantings and hedgerow cover.

Figure 3 A CONSTRUCTED CHANNEL

Comment: Additional information should be provided to evaluate the impact of delayed wildlife use of construction areas until a vegetative cover can be established.

Response: Construction areas for emergency measure installation are seeded. In humid regions, a vegetative cover is expected during the growing season. In arid regions, it may take a considerably longer period for vegetation to be established. Wildlife use of the vegetated area will be delayed until suitable cover is established. Some wildlife species will use the areas immediately after the first blades of grass emerge, while other species will not use an area until a climax community occurs, and still other wildlife usage will fall between the two extremes.

Comment: Riparian communities of streambank vegetation should not be disturbed when installing emergency measures. Trees that lean over and do not obstruct flow should not be cleared. It is better to work on the stream bottom rather than disturb streambank vegetation.

Response: We agree, riparian streambank vegetation should not be disturbed for extensive reaches. Areas of access, sediment and debris removal, and streambank stabilization may involve some vegetation removal. It is SCS policy to minimize adverse impacts by the use of construction techniques such as work from one side only, use hand labor or smaller construction machinery whenever possible, and to reseed work areas immediately following emergency measure installation.

Comment: Fire actually improves habitat for certain wildlife species by providing more browse and ground cover.

Response: We agree. A description of areas in a wildfire is provided in Section 1a of the final EIS. Controlled fires can and do remove undesirable wildlife habitat and allow growth of vegetative species conducive to increased browse and ground cover for certain wildlife species.

Comment: On page 3 of the draft EIS, land slips and slides are attributed to the inability of land areas devoid of vegetation to accomodate excess mositure. On the other hand, on pages 13 and 14 of the draft EIS it is emphasized that a vegetative

cover increases the infiltration of surface water and holds it within the soil While plants do remove moisture from the ground and a vegetative cover does tend to increase infiltration and reduce runoff, it is inconsistent to suggest that the revegetation of an area will both increase and decrease the mositure content of the soil.

Response: Vegetative cover will increase infiltration rate of water into the soil profile. The presence of vegetation will also increase the evapotranspiration rate (see reference 22, page 52). Therefore, the amount of moisture going into soil for a given period of time is increased, but because of the higher rate of evapotranspiration the soil moisture content over a given period of time will be reduced when compared to a similar soil without vegetation.

Comment: The draft EIS implies that flooding denudes a watershed in a fashion similar to a fire. In some regions of the country, this is not true as flooding is a natural event to which an unaltered stream and its associated vegetation on the flood plain have become adapted.

Response: We agree. Flooding will not remove vegetation in some regions of the country. In steep or mountainous areas, extreme floods will wash riparian vegetation off streambanks and flood plains. It is these latter conditions that are being referred to in the EIS, when descriptions of floods removing vegetation are mentioned.

6h. Comments related to other alternatives

Comment: Reviewers expressed contradictory recommendations concerning alternatives for future assistance. Some felt the alternative of "watershed protection and flood prevention" is uneconomical, unpractical, and unlikely to have enough funds to be effective, while others endorsed the alternative. The land use management alternative received several endorsements. Some reviewers recommended the alternative of "no-program" while others recommened the opposite alternative of "increased funding of the existing program." Many reviewers were satisfied with the existing emergency assistance measures and some wanted channel-related measures deleted.

Response: An analysis of the letters of comments received was made to obtain an understanding of the reviewers' wishes. It appears that present administration of installation of

emergency assistance is supported by the majority of the individuals and agencies responding to the draft EIS. The following table summarizes the analysis of alternative recommendations made by reviewers of the draft EIS.

Alternatives recommended by draft EIS reviewers	Percent
Agree with present emergency assistance	76
Expand funding of existing assistance	5
Watershed protection and flood prevention	1
Land use and flood plain management	10
Existing assistance without channel work features	3
No program and terminating existing assistance	4
Combining alternative features of the draft EIS	1
Total	100

Comment: Some of the alternatives appear too broad. A program combining features of two or more of the "different" alternatives may be desirable.

Response: We recognize the broad and distinct differences in the alternatives included. These alternatives are representative of choices available for administering a national program for emergency measure installation. We also recognize that some of the features in the alternatives are not authorized; however, they are presented to display potential options available. An introduction to Section 5 of the final EIS has been added to encourage readers to select features from the various alternatives presented and thus construct additional alternatives which may be desirable. To be most effective, emergency assistance should have the maximum amount of flexibility to permit the selection of emergency measures needed to safeguard lives and property following a sudden impairment of a watershed.

Comment: The environmental impacts of the various alternatives should be discussed in greater detail.

Response: Environmental impacts of the alternatives were kept brief to present concise summaries of likely impacts caused by the alternatives. Alternatives were selected which would avoid adverse impacts caused by the emergency measure installation. Readers are encouraged to review the environmental impact Section 2 through 2h inclusive for details on kind and extent of impacts. To avoid duplication, only summaries of the impacts are presented with the various alternatives.

6i. Comments related to channel work

Comment: Channelization funds should be used to compensate landowners who practice flood plain management for losses or cost of land rights and easements.

Response: At the present time, the SCS does not have authority to use emergency measure installation funds to compensate landowners for losses they may incur. Emergency measure installation funds are used to install soil-erosion prevention and floodwater retarding measures to safeguard lives and property from the impacts of an impaired watershed. In some cases, this would include such practices as sediment and debris removal, open channel work, and streambank stabilization.

Comment: The following environmental impacts should be included in the final EIS for emergency measures associated with channel work: removal of stream vegetative cover, loss of stream-graded substrates and their composition, temporary and permanent changes in the stream pool-riffle ratios, change in aquatic life and diversity of aquatic species, change in flow and run-off rates as it affects downstream reaches, stream channel width and depth, allochthonous input, change in chemical quality, change in stream channel erosion and sediment, and effect of straightening and grade change.

Response: We will respond to each of the environmental impact recommentations and provide an amplification of the SCS stated policy as contained in Appendix B of the final EIS. Watershed Memorandum 124 (Rev. 1) was issued on July 24, 1973 and work installed prior to or being installed on that date may be different from our present interpretation. Emergency work currently being installed is consistent with the following description.

Impacts related to the removal of stream vegetative cover are discussed in Section 2d of the final EIS. Removal of vegetative canopy over channels increases stream water temperature and will reduce the supply of organic detritus material. These impacts will reduce the stream's bioactivity. We expect the adverse impacts caused by channel canopy removal to be minimal as work areas are usually adjacent to access roads and other short reaches in the vicinity of stream crossings. Frequently in mountainous areas, streamside vegetation has been stripped away by the disaster event.

Construction work involving streams will affect composition and position of the graded substrate. Removal of sediment deposits in the stream and placing the sediment in spoil, physically alters the stream's graded substrate. Impacts range from changed aquatic activity as hatching areas are either destroyed, in the case of removal of gravel and other stream bottom deposits, to increasing aquatic habitat whenever favorable materials are restored by the removal of sediment and debris deposited upon them. Adverse impacts are minimized as generally only short reaches of channel work are disturbed for sediment and debris removal.

Emergency measures related to channel work will alter the existing pool-riffle ratio either permanently or temporarily. The sudden deterioration of a watershed causes a dramatic change in the pool-riffle ratio as the stream is abruptly transformed from the pre-disaster to the environmentally adverse post-disaster condition. Emergency measures to stabilize streambanks or remove sediment and debris will change the post-disaster pool-riffle ratio of stream reaches. To the extent possible, the change is toward the condition that existed prior to the disaster. In some situations, such as when the disaster event has caused the stream to relocate in a new channel, it may not be possible or desirable to restore the original stream conditions.

Emergency measures will impact aquatic life and the diversity of species. Removal of vegetative canopy will increase stream temperature and decrease organic detritus materials (1 and 57). Both of these impacts will reduce the amount and diversity of aquatic species. Installing emergency measures will temporarily increase stream sedimentation resulting in decreased aquatic activity by increasing turbidity and stream sediment deposition on spawning areas. Emergency measures are installed in the post-disaster condition where streambanks are exposed to severe erosion and large amounts of sediment and debris have been deposited in the stream. Reduction of the severe erosion and flooding conditions will have a favorable impact on aquatic species. Adverse impacts are minimized by working in short reaches, generally near roadways and other access points, and using such construction techniques as working from one side only, where possible, using hand labor for stream work, and establishing vegetative cover immediately after installation of the emergency measures.

Impacts related to changes of flow and runoff rates as they affect downstream reaches are included in Section 2d of the final EIS. Downstream flooding will be increased as floodwater is conveyed through cleared channels faster, thus allowing fewer opportunities for storage on natural flood plains (1 and 32). Downstream flooding would be increased relative to the post-disaster condition. The relationship of upstream flooding and downstream flooding would be essentially reinstated to the pre-disaster condition.

Installing emergency measures will affect the width and depth of channels. Removing sediment and debris from clogged channel areas will, to fullest extent possible, reinstate the dimensions that existed prior to the disaster event. Whenever streams remain in their original pre-disaster position and have been severely eroded or widened by natural forces, emergency measures will not be used for the purpose of increasing the width or depth of the stream. Emergency assistance is not intended to solve water resource problems which existed prior to the disaster.

Allochthonous is defined as introduced or of foreign origin. Allochthonous inputs into a stream are minor or non-existent except for increased erosion and sediment that is likely to occur during emergency measure installation and immediately thereafter. Whenever riprap is used to stabilize streambanks, materials may be brought in that are foreign to the stream. Adverse impacts are minimized as generally only short severely eroding stream reaches are stabilized.

Emergency measures on streams will change the chemical quality of the water content. Stabilization of streambanks and the removal of sediment and debris will cause erosion to temporarily increase during installation. Turbidity and other water quality properties reflecting the increased sediment will be affected. Adverse impacts are minimized as short reaches, usually near access routes, with severe erosion or clogging problems are treated. The intent of installing emergency measures is to safeguard life and property by reducing flooding potential and controlling severe streambank erosion. By reducing flooding, waters will have less opportunity to have a change in chemical quality outside of the natural stream's course. Also, reducing the severe streambank erosion, the level of turbidity and other properties affected by sediment in the water will be improved from the post-disaster condition.

Installation of emergency measures will cause erosion and sediment to be temporarily increased in the stream. These impacts are included in Section 2d of the final EIS. Removal of sediment and debris deposits from the stream will eliminate them as future sources of material to be carried downstream by the stream's forces. Likewise by reducing severe streambank erosion, sources of stream sediment are being stabilized. Emergency measures will reduce future sediment compared to the post-disaster conditions.

Emergency measures installed on streams may cause straightening and grade changes. SCS policy as reflected in Watershed Memorandum 124 (Rev. 1) issued July 24, 1973 (See Appendix B) points out unnecessary straightening is to be avoided and stream meanders retained. Adverse impacts are minimized as emergency measures are generally installed on short reaches. Straightening and stream grade changes are most likely to occur in streams where the disaster has caused the stream to locate into a new channel and efforts to reinstate flow conditions may involve stream straightening and grade changes.

Comment: The extent of emergency work on streams appears to be more extensive then may be warranted. Extensive reshaping has taken place where work could have been limited to removal of sediment and debris deposits.

Response: SCS policy does not permit installation of emergency measures which include extensive stream reshaping or channel modification for the purpose of increasing coveyance capacity of streams in excess of the pre-disaster condition. Emergency measure work involving streams is coordinated with state and other regulatory agencies as well as sponsors. Sediment and debris removal is accomplished to reduce the immediate threat of flooding. Grade control structures and streambank stabilization measures are used to keep the stream in its existing channel and prevent the loss of property that may be caused by the stream changing its course. Emergency assistance related to channel work is for the purpose of safeguarding lives and property.

Comment: Anticipated long-term adverse environmental impacts associated with stream work should be discussed in more detail in the request for emergency assistance funding. Also, the report should be sent to organizations which participated in the study.

Response: Emergency assistance is the timely protection of lives and property from amplified floods and the remnant impacts of an abruptly injured watershed. The most common channel work associated with emergency assistance is the removal of sediment and debris deposits, repair or installation of grade control structures, and the stabilization of exposed severely eroding streambanks. Proper consideration of long-term environmental impacts are an integral part of the emergency assistance procedure. Information related to emergency assistance including a memorandum request for funding is available for inspection in the state conservationist's office. This information is available in states where a disaster has occurred and the state conservationist has requested funding for emergency assistance.

Comment: Streambank stabilization will reduce erosion in the exact area of placement and will tend to divert water across the channel causing accelerated erosion on the opposite bank. Rock riprap allows water to flow faster than vegetative covered banks, therefore causing greater bank and channel erosion downstream.

Response: Streambank stabilization measures are used in areas of active and severe erosion. Mechanical current deflectors will cause the stream current to divert water onto the opposite bank with the potential for increased erosion. The most common streambank stabilization measure is the establishment of vegetative cover. Also, it is true that rock riprap will allow the stream to flow faster than an irregular streambank with bushy vegetative cover. Streambank stabilization measures are used in active eroding areas where vegetative cover had been previously stripped away. Rock riprap is a rougher surface than the exposed earth. Water current will be slower than in the post-disaster condition after stabilization measures have been installed.

Comment: An explanation should be included to discuss when mechanical streambank stabilization measures should be used instead of vegetative cover.

Response: Vegetative cover is the first consideration for streambank stabilization. In areas of excessive stream velocity or turbulence, it is necessary to use more durable measures to hold the soil in place. Size of stream, velocity of water, soil property, and availability of construction materials will dictate the kind of measure used. Standards and specifications used are consistent with similar measures in other programs. The SCS

Field Office Technical Guide contains specific recommendations for streambank stabilization as adapted for specific areas of the country.

Comment: False security from emergency channel work should be emphasized in the final EIS.

Response: We agree. Section 2f of the final EIS has been revised to emphasize the false security impact of installing emergency measures.

Comment: Streambank shaping for stabilizing streambanks was omitted from the draft EIS. Streambank shaping is one of the most destructive measures used as streambank vegetation is lost, sediment is increased from the reshaped area, and shoreline hiding areas are eliminated for aquatic species.

Response: Streambank shaping is not a measure used by itself for streambank stabilization because of the reasons expressed in the comment. Streambank shaping is used when natural vegetation has been stripped away by extreme forces leaving a denuded, excessively eroding, and unstable streambank. In order to establish vegatative cover on exposed areas, it may be necessary to reshape the bank to provide an adequate seed bed and to reduce erosion enough to allow vegetation to become established.

Comment: Substrate materials removed from a stream section and used in the same section as riprap material does not provide a stable streambank. This substrate material has already demonstrated that it is tranportable by the stream's forces.

Response: Material removed from the stream bottom more then likely will have a history of being transportable by forces during periods of extreme flooding. In the process of debris and sediment removal, much rock is removed from the stream. Often the rock is placed on the streambanks to provide immediate protection from the impact of direct rainfall and erosion by normal flood events. We recognize that such material will not provide stable conditions when an extreme flood event occurs. Emergency assistance is provided immediately after a disaster to protect against amplified flooding that may be caused by remnant conditions. In the event that it be desirable to provide protection from extreme flood events, other programs such

as authorized by the Watershed Protection and Flood Prevention Act (Public Law 83-566) or programs administered by the U. S. Army, Corps of Engineers should be considered.

Comment: Some streambank erosion is desirable from an ecological standpoint. The erosion forces of streambank cutting and the subsequent deposition of material into streams create natural stream meandering. This process eventually leads to the creation of rich bottomlands by sediment deposition. Undercut streambanks provide pool areas, hiding, and habitat suitable for diversity of aquatic species. One study -"Water Fluctuation, A Detrimental Influence on Trout Stream," Corning, R. V., 1969, Proc S. E. Assn Game and Fish Commission - reported 129 to 149 pounds of benthic fauna per surface acre was produced in an eroding stream zone. It is only when erosion becomes excessive that severe damage to aquatic life results.

Response: We agree. Erosion forces on streams create a meandering stream pattern and good habitat for aquatic species. Streambank stabilization measures are used only when erosion is excessive.

Comment: Emergency channel work may cause more adverse impacts than the disaster itself. Channel relocation, straightening, widening, dredging, and similar modifications should not be considered eligible for emergency installation. Channel work should be limited to critical areas, spot removal of sediment and debris in the vicinity of bridges, entire reach modification avoided, and minimal work practical that would restore stream dimensions that existed prior to the flood.

Response: Emergency channel work is generally limited to road access areas and reaches which will safeguard lives and property. SCS policy does not permit extensive reshaping. The following quotation is from the Watershed Memorandum-124 (Rev. 1) issued July 24, 1973 (See Appendix B).

> "Environmental aspects of emergency work are to be given careful consideration. Adverse effects on the environment are to be avoided and favorable effects encouraged to the maximum extent practicable. Stream work is to be localized to critical areas. Entire reaches are not usually to be reconstructed. Streams are not to be unnecessarily straightened or widened.

Meanders are to be retained. Existing vegetation and other natural features are to be preserved whenever possible. To the maximum extent practicable, measures and designs should be used that have fish and wildlife value, bring favorable scenic results, or otherwise add to the quality of the environment. Construction techniques should be used that minimize erosion and sedimentation."

6j. Comments related to other environmental impacts

Comment: Newly eroded soil would not impact the environment by the introduction of pathogens as stated in Section 2a of the draft EIS.

Response: We concur. The final EIS has been revised removing the reference to pathogens.

Comment: The impact on aesthetics found in Section 2d of the draft EIS does not relate to emergency assistance but describes the post-disaster condition.

Response: We agree. The impact on aesthetics has been revised to reflect emergency measure work. The revised impact is in Section 2a of the final EIS.

Comment: Suggest listing of equipment starting with the least environmentally damaging, i.e. hand tools, which should be considered whenever SCS federally contracts emergency assistance.

Response: Listed are the equipment potentials which may be suitable for installing emergency measures by order of potential environmental impacts.

Vegetative Procedures

Air seeding is usually effective in large disturbed areas and not suited to streambank stabilization work. Air seeding appears to be environmentally acceptable when effective.

Back pack, hydro - and drill seeding is the most effective seeding procedure and is limited to smaller areas such as streambanks. Because of the good germination potential of the seed, this procedure is considered to be environmentally acceptable.

Earth Construction Procedures

Hand tools and hand labor are extremely effective for "spot" work and providing limited assistance. Hand work appears to be environmentally acceptable. Unfortunately, after a disaster, there is much need for labor and large numbers of workers are usually not available for installation of the urgently needed emergency assistance.

Small construction equipment includes chain saws, jeeps, pickup trucks, tractors, and other equipment. Small construction equipment is effective in working in limited stream reaches. Size of equipment prohibits removal of large sediment and debris clogs and can accomplish only a limited amount of work in a given period of time. Environmentally, small construction equipment is less acceptable than hand tools,

Large construction equipment is the most environmentally disruptive. Large equipment is usually the most common equipment owned by contractors because of efficiency of operation. Large equipment can accomplish the most emergency assistance work with a minimum of labor in the shortest period of time.

Comment: The draft EIS contains a brief description of possible environmental damage and the precautions to avoid adverse damage. Guidelines and standards for typical emergency measures should be included. Additional explanation of the precautions should be discussed.

Response: Section 1f of the final EIS has been revised and expanded to include discussion of construction techniques and standards. Section 2 of the final EIS describes possible environmental damage which could occur with the installation of various emergency measures. Alternative solutions to avoid adverse impacts are included in the SCS Field Office Technical Guides and in Section 5 of the final EIS.

Comment: Additional explanation of wildlife considerations is needed as wildlife habitat is vulnerable from both natural and man-made restoration.

Response: We agree that wildlife habitat is vulnerable from both natural and man-made recovery efforts. SCS policy as contained in Watersheds Memorandum 124 (Rev. 1) issued July 24, 1973 (See Appendix B) requires wildlife consideration and coordination with fish and game agencies. It is important to realize that emergency assistance is provided to safeguard life and property from flooding and the products of erosion that may be caused by remnant conditions after a sudden impairment of a watershed.

Comment: A reference in the draft EIS is made of "rodent control" but no details on pesticide use is included.

Response: Rodent control referred in Section 1f of the draft EIS was accomplished in certain critical areas. To establish

a vegetative cover, it may be necessary to control rodents. Rodent control is used in unique limited areas where a serious problem exists. This is not a uniform national practice. Federal, state, and local regulations concerning pesticide use are strictly followed.

Comment: Logroads are constructed over a period of time and do not relate to sudden impairment of a watershed. If logroads were built and maintained properly, they would not be a problem.

Response: There appears to be a misinterpretation of Section 1b in the draft EIS. Logroads are not the sudden impairment of a watershed. Logroads are damaged and subject to being washed out by floods and the products of erosion caused by the remnant conditions after a watershed has been abruptly injured. Logroads are constructed with water control features such as road ditches, culvert crossings, and grade control structures. Following a sudden deterioration of a watershed, such as a forest fire, sediment and debris are deposited in the logroads water control features during subsequent rainfall runoff events. Even properly designed and maintained logroads may wash out and become sources of erosion following such a disater.

Comment: Installation of structural measures for gully and logroad erosion control would not improve conditions from the pre-disaster environment.

Response: Environmental impacts of the draft and final EIS are described in terms of effect upon the post-disaster condition. Since emergency assistance is initiated after the disaster occurs and measures are used to control or reduce adverse impacts occurring, all environmental impact considerations are related to the effect the proposed emergency measure would have on the post-disaster condition.

Comment: It is doubtful if emergency assistance would influence rural out-migration. Trends in agriculture, discountinuance of farming for a livelihood, and economic development appear to be the major reasons for rural to urban migration.

Response: We agree, emergency assistance would have a minor influence on rural out-migration. The favorable impact shown in Section 2g of the draft EIS has been deleted in the final EIS.

Comment: The impacts on urban areas caused by rural out-migration should be discussed.

Response: As indicated in the response to the previous comment, the influence of emergency assistance on rural out-migration would be minor. Out-migration would be caused by the disaster or sudden impairment of a watershed and not the assistance provided later on. Impacts on urban population and growth characteristics are not directly related to the emergency assistance as authorized by Section 216 of the Flood Control Act of 1950.

Comment: The final EIS should include provisions to avoid adverse impacts on air quality and discuss alternative methods of waste disposal.

Response: Section 1f of the final EIS has been revised consistent with present construction standards and requirements. The adverse impacts of air quality change remains in the final EIS as burning of debris is allowed in some areas. Certainly, alternative methods of solid waste disposal are investigated and used to fullest extent possible. Federal, state and local regulations concerning solid waste disposal are observed.

Comment:

An environmental assessment checklist should be included in the final EIS. Both the draft EIS and Appendix B refer to environmental considerations but do not describe assessments related to individual emergency measures. The following list are some items that should be included in such an environmental assessment.

Site of project

Work needed/proposed
Fishing resources/specie listing
Anticipated effect of needed/proposed work on each specie - short/long term
Game resources/species listing
Anticipated effects of needed/proposed work on each specie - short/long term
Fowl resources/specie listing
Anticipated effect of needed/proposed work on each specie - short/long term
Current water quality conditions - indicate chemical content and test used to determine content
Oxygen
Phosphorous
Nitrogen/nitrate
Sediment

Anticipated effects of needed/proposed work on chemical contents of water - short/long term

Response: SCS prepares environmental assessments consistent with our guidelines (Title 7 CFR 650, subpart A) for preparation of environmental impact statements. Environmental assessments include at least the following items:

Erosion and sedimentation

Water table alternations

Change in flow regime

Changes in land use

Changes in air quality

Upland wildlife habitat

Migration routes

Bottomland wildlife habitat

Bottomland hardwoods

Stream fisheries including potential not presently productive

Wetlands

Rare and endangered animals and plants

Natural perennial streams

Man-altered perennial streams

Natural intermittent streams

Archealogical and historical resources

Water quantity

Water quality, including receiving waters

Appearance of the landscape

Environmental assessments are made commensurate with the extent of the proposed emergency measure. Emergency assistance involving conservation land treatment practices would have a lower level of detail. If extensive channel work were involved, then all of the mentioned items would be considered, as appropriate, in the environmental assessment.

6k. Comments related to emergency work in specific situations

Comment: The draft EIS presents a quote from the A. D. Little Report and points out that overhanging vegetation is one of the main sources of detritus materials that gets into the stream. This appears to be in conflict with SCS policy for channel work installation in Ohio.

Response: We assume the comment is referring to work being installed under authorization other than Section 216 of the Flood Control Act of May 17, 1950, as there has been no allotment of emergency measure funds to Ohio. The quote from the A. D. Little Report is consistent with SCS policy. We strongly encourage streamside vegetation be left in place where possible and to immediately revegetate disturbed areas after construction work is complete. Because of the size of work being carried out and the eqipment used, it may necessitate clearing. Techniques such as construction from one side leave about one-half of riparian vegetation on existing streambanks. Emergency work is installed to safeguard life and property as a result of a disaster event and is not for the purpose of solving water resource problems existing prior to the disaster.

Comment: The Commonwealth of Virginia, Office of the Governor's September 25, 1974, letter (Appendix D) Appendix II, June 13, 1974, letter from Commission of Game and Inland Fisheries refers to Section 1C "Unstable streambanks caused by floods and erosion forces." The reviewer related that much more work was done on Buffalo River than planned and refers readers to an August 17, 1970, letter from the Department of the Interior, Fish and Wildlife Service.

Response: The August 17, 1970, letter from the Fish and Wildlife Service reviews planned features in the Buffalo River Watershed Project, a Watershed Protection and Flood prevention project sponsored by local government with authorized federal cost sharing by Public Law 83-566, as amended. The project containing conservation land treatment supplemented by two floodwater retarding structure, and two multiple purpose flood prevention and water supply structures was approved for installation on October 15, 1974. Apparently, emergency work being installed on Buffalo River was misinterpreted as the planned Public Law 83-566 project work. Emergency measures were installed in the vicinity of the proposed project measures and would appear to overlap.

Comment: Following Hurricane Camille in 1969, SCS and other agencies channelized and damaged the entire James River Basin.

Response: Following Hurricane Camille, the Soil Conservation Service obligated approximately $4, 250,000 (3.7 million supplemental appropriation plus $550,000 of regular FY '70 and '71 funds) for supervision and installation of emergency measures in Virginia. Approximately ninety percent of these funds were used for sediment and debris removal, streambank stabilization, and other channel related restoration in the James River Basin. Approximately 500 stream miles of emergency streambank stabilization, debris removal, and channel work were installed in the James River Basin portion of Virginia. Emergency channel measures were limited to heavily damaged areas which included many unnamed and/or intermittent flowing streams.

Following Hurricane Camille the Agriculture Stabilization and Conservation Service, USDA, obligated approximately $250,000 as reimbursement funds to farmers for stream channel repair through the Emergency Conservation Measures. The total stream distance involved was about 250 miles and was mostly intermittent flowing streams.

Channel restoration by the Corps of Engineers following Hurricane Camille was confined to spot removal of debris and sediment at heavily damaged locations on major streams which presented serious hazards to life and property.

Virginia Department of Highways and Transportation cleaned out streams under approximately 200 bridges following Hurricane Cammille. Generally, such work was restricted to about 500 feet upstream and 500 feet downstream from a bridge. If a serious hazard was obvious, the distance upstream may have been extended to as much as one-half mile. The total mileage was estimated to be less than 50 miles of stream channel restoration accomplished by the Department of Highways after the two storms.

Emergency work from all programs involved a total of about 800 miles of streams in the James River Basin. Much of the work was on streams with intermittent flowing conditions. Intermittent streams are those that normally will have flowing water for part of the year and no flowing water on the surface for the remainder of the year. The Virginia Water Control Board has measured the accumulated length of named streams in the James River Basin to be 5,566 miles. Named streams are usually perennial streams which normally have flowing water throughout the year. No measurement of the accumulated length of intermittent streams has been made.

Comment: Hurricane Agnes with less rainfall caused a greater flood at Richmond, Virginia than Hurricane Camille did. This is caused by the SCS channelization of the James River Basin.

Response: Data compiled from published climitological records reveal that the James River drainage area above Richmond received a weighted rainfall of 6.42 inches from Hurricane Agnes in June of 1972. Hurricane Camille in 1969 provided a weighted rainfall of 4.94 inches over the same drainage area.

Figure 4 contains isopluvial maps for the James River Basin to show rainfall amounts and distribution as a result of the hurricanes. Figure 5 shows portions of the resultant hydrograph displaying the highest peak discharges of the James River at Richmond, Virginia.

Channel alteration can increase flow velocities and cause increased peak discharge in downstream reaches. Emergency channel work installed by all agencies following Hurricane Camille involved approximately 800 miles of emergency work. As can be seen from the previous comment and response, this is a small portion of the total stream resource of the James River Basin.

Since the published reports of rainfall amounts confirms that comparable soil moisture conditions existed prior to both storms, the greater amount of rainfall in the James River by Hurricane Agnes appears to have caused the increased flooding.

Comment: Because of the increased flood damages caused by channelization of the James River Basin, there is a $1 billion proposal for flood protection.

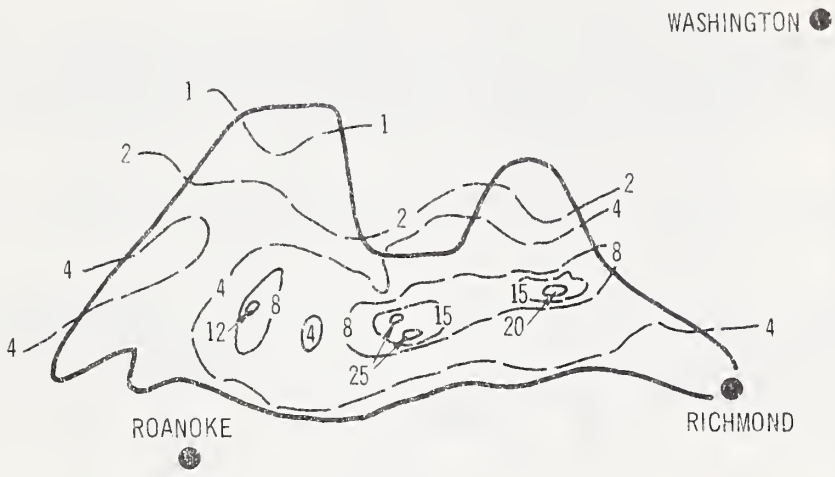
Response: There have been no proposals for flood protection in the James River Basin due to the effects of channel work of which we are aware.

To date there are six authorized PL 83-566 watersheds administered by SCS in cooperation with sponsoring local organizations in the James River Basin, all of which were formulated prior to either Hurricane Camille or Hurricane Agnes. Of the six projects, three are complete, and the remaining three are at various stages of completion.

In addition, there have been sixteen applications for federal assistance as authorized by PL 83-566 filed by the local people for watershed planning status in the James River Basin (two of

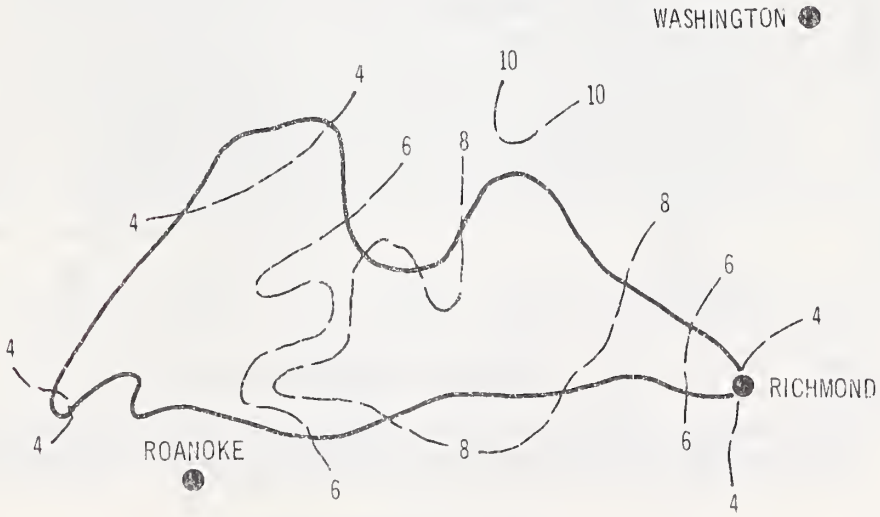
ACCUMULATED PRECIPITATION IN THE JAMES RIVER BASIN ABOVE RICHMOND, VIRGINIA

Hurricane Camille – August 19-20, 1969



Scale 1" = 50 miles

Hurricane Agnes – June 19-23, 1969



Scale 1" = 50 miles

Figure 4

HYDROGRAPH OF THE JAMES RIVER AT RICHMOND, VIRGINIA DURING HURRICANES CAMILLE AND AGNES

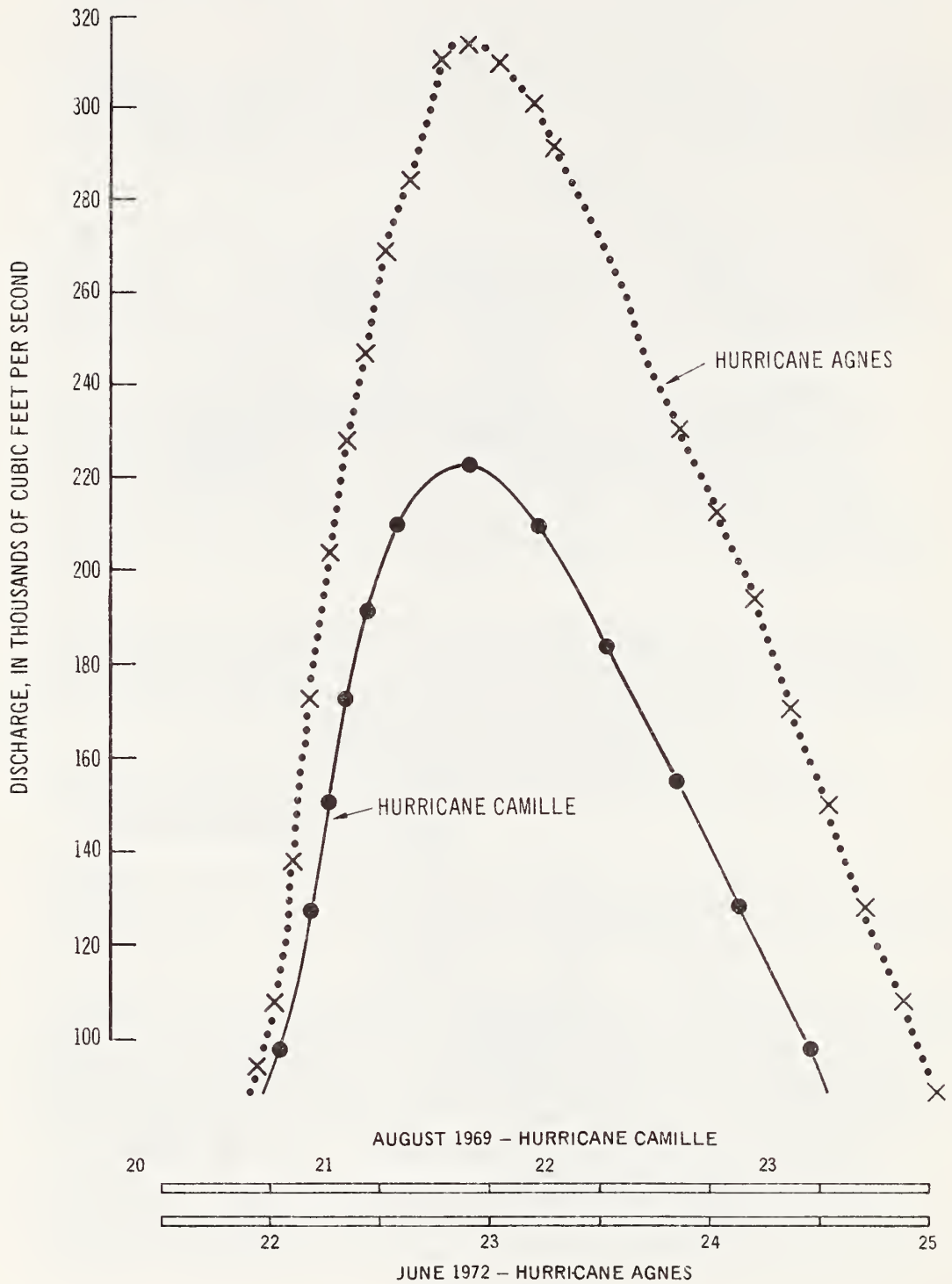


Figure 5

the sixteen have been withdrawn). Of this number, fifteen applications were submitted prior to Hurricane Camille; one was submitted in the period between Hurricane Camille and Hurricane Agnes; and none have been received since Hurricane Agnes.

The Agricultural Stabilization and Conservation Service, USDA, has no proposed program other than the on-going REAP and RECP programs available to landowners and/or land users to promote soil and water conservation on the land.

The State of Virginia has no program planned for flood protection in the James River Basin.

Contacts with the Corps of Engineers indicate that they have no **new** projects formulated for flood protection since Hurricanes Camille and Agnes. However, there has been renewed interest in some prior proposals for flood protection along the James River such as the Richmond and Buena Vista floodwalls.

We are not aware of a $1 billion flood protection program proposed for the James River Basin.

Comment: Emergency channelization has increased both the runoff and sediment delivery into the lower James River. Increased sediment delivery is adversely affecting oyster beds and runoff changes are affecting the salinity.

Response: It is characteristic of a storm with the intensity of Hurricane Camille with high localized rainfall and subsequent land slides, to carry more sediment. Photos one through five show the effect that Hurricane Camille (1969) had on the area. The need for emergency streambank stabilization and debris removal is evident. Streamchannel work was limited to removal of debris and sediment at heavily damaged locations. Photos six and seven show actual installation of the channel work on Dillard's Creek, located in Nelson County, with the application of seed and fertilizer.

Photo seven taken in May 1971, shows channel conditions before Hurricane Agnes. Photo eight shows that Hurricane Agnes had little effect on streambank erosion. Primary soil losses from Hurricane Camille resulted from land slides and stream bank erosion. Also, soil losses due to Hurricane Agnes came from vulnerable cultivated crop land and other exposed areas.



Photo 1. Rockfish River at Rockfish, Va. taken after Hurricane Camille in 1969, showing stream banks stripped of vegetation.



Photo 2. Melton Hollow, 1969, headwaters of Muddy Creek, near Lovingston and tributary to Rockfish River after Hurricane Camille.



Photo 3. Davis Creek, 1969. Need of stream stabilization is evident. Photo was taken immediately after Hurricane Camille.



Photo 4. Tye River stream bank vegetation stripped up to 50' stage. This is also typical of the Rockfish and Buffalo gorge areas following the Hurricane.



Photo 5. Dillard Creek after Hurricane Camille 1969 with sand deposits over entire flood plain.



Photo 6. Dillard Creek channel after emergency measures of application of seed and fertilizer have been installed.



Photo 7. Dillard Creek, May 1971 before Hurricane Agnes.



Photo 8. Dillard Creek, June 1973 after Hurricane Agnes with completed emergency channel work.

It is estimated that 50 million tons of soil were lost from approximately 1.1 million acres of cropland in the James River Basin during Hurricane Agnes. Approximately 2.6 million tons of sediment were delivered to Richmond via the James River.

Peak discharge of the James River at the Huguenot Bridge, Richmond, Virginia was 318,700 cfs following Hurricane Agnes. The average sediment concentration was 12 Mg/Liter. Where rainfall was heaviest, losses were in excess of 40 tons per acre. This represented about 4 percent of the top soil. It appears that the greatest source of sediment was sheet erosion. Sediment derived from channels would tend to be courser and not travel far from its source.

Effects on salinity would be primarily a result of quantity of fresh water and not time of concentration.

Appendix I of the September 25, 1974, letter of comments from the Commonwealth of Virginia, contains a letter from the Bureau of Shellfish Sanitation, Virginia Department of Health (See Appendix D of the final EIS). The following is a quotation from the letter.

> "The major benefit of the implementation of such emergency watershed protection program is in assisting in maintaining land in its present state of development and in preserving natural areas. Its goal is to reduce the threat of increased erosion or flooding and to minimize the effects and not to try to prevent the disaster or stop it. If such control over the extent of the damage to be effected on man and his environment can be attained, then the program will have been successful. If these emergency measures are implemented quickly, the effects of natural events occurring soon after a disaster can be reduced and the environment protected to some degree. It is the opinion of the Bureau of Shellfish Sanitation that this program will be beneficial to shellfish and the shellfish industry of Virginia and approval is unconditionally recommended."

Comment: Channelization has changed the character of Rockfish River. Some reviewers reported summer water temperatures increasing as much as 20°F after the emergency measures were installed. Also reviewers indicated that channelization has destroyed the stream resource of the Tye River.

Response: The Virginia Water Control Board has no temperature readings before or after Hurricane Camille on the Rockfish River and we do not know of a recorded source of information to support the claim that summer temperatures have increased as much as 20° after emergency measures were installed. The trees which provided shade along the Rockfish and Tye Rivers and their tributaries were uprooted by the storm. Only in a few instances were live healthy trees removed in performing the emergency channel work. Photos one through five show damaged flood plains, channels, and streambanks. These are typical of gorge areas of the Tye, Buffalo, Rockfish and other similar rivers and tributaries in Amherst and Nelson Counties, Virginia. Photos seven and eight show some typical end results of emergency channel work.

Comment: Some of the reviewers felt that officials from the State of Virginia, local governments, and special interest groups did not have an opportunity to coordinate and participate in emergency measure selection and installation.

Response: Quoted below is a letter received by SCS concerning emergency restoration work following Hurricane Camille:

> "The results achieved by the dedicated and extremely, competent members of the Soil Conservation Service, though verging on the impossible, did not happen by accident. The planning and coordination of their efforts represent the best I have observed during my forty-seven years in Federal and State Service. Before they made a move, they sat down with the representatives of all Federal, State and local agencies that had any responsibility related, even remotely, with that laid upon them by the Congress of the United States. Thus, they insured that there would be neither overlapping nor gaps in the relief afforded the people of these grievously afflicted areas.
>
> "No, not just Virginians, but all Americans owe a debt of gratitude to the Soil Conservation Service."
>
> /s/ Alfred B. Denniston
> Major General, U.S. Army (Ret.)
> Coordinator of Civil Defense
> and Director of Emergency Planning
> Commonwealth of Virginia

Requests for emergency assistance were submitted to designated representatives of the Soil and Water Conservation Districts and County Supervisors (subdivisions of the state government) for approval and assignment of priorities. All work was in accordance with the authority under which the funds were appropriated.

Following Hurricane Agnes but before any emergency work was started, the SCS State Conservationist initiated a conference with Honorable Maurice B. Rowe, Secretary of Commerce and Resources for the Commonwealth of Virginia, to obtain state guidance in performing the work. This resulted in a "Guidelines Committee" appointed by the Secretary to work with the SCS in the development of mutually acceptable guidelines for installation of emergency measures. The committee was composed of one representative each from the following state agencies: Soil and Water Conservation Commission, Chairman; Commission of Game and Inland Fisheries; Water Control Board; and Commission of Outdoor Recreation. Guidelines developed by this committee were followed by the SCS. In addition to technical guidelines, the policy required a review of each proposed project by a local Advisory Team composed of representatives of the Soil and Water Conservation District, County Board of Supervisors, Commission of Game and Inland Fisheries, Extension Service, Virginia Division of Forestry, Agricultural Stabilization and Conservation Service and others as appropriate. In the event of failure to reach agreement, the dissenting local representative was encouraged to appeal through appropriate agency channels. While there were judgmental differences on the interpretation of guidelines, in no instance was a formal complaint registered by a state agency head, or by the Secretary.

61. Comments not related to subjects in Sections 6b through 6k inclusive

Comments: The majority of SCS emergency measures have a beneficial effect on the environment and will accelerate recovery from the post-disaster condition. Gully stabilization, logroad erosion control, streambank stabilization, and revegetation will reduce erosion and sediment thus benefiting water quality and aquatic habitat. Sediment and debris removal will reduce flooding, protect lives and property, and have a minimal adverse environmental impact.

Response: We agree. The impacts mentioned are in the draft EIS and the final EIS.

Comment: Procedures should be used to determine impacts of emergency work similar to those developed by the Susquehanna River Basin Commission.

Response: The Susquehanna River Basin Commission procedures are attached to the July 22, 1974, letter of comments from the State of Maryland, Department of Natural Resources. SCS contributed to the development of the guidelines.

Comment: To clarify the types of actions used for emergency assistance, it is suggested that specific examples of previous assistance be included in the final EIS.

Response: Both the description (see Section 1) and Environmental Impact (See Section 2) are subdivided to reflect emergency measures commonly used. Specific examples of completed work are included in Section 1f of the final EIS.

Comment: Depending upon geological conditions, terraces may induce slope failures with subsequent increases in erosion

Response: In steep topography and the presence of soils which have a tendency to slide, terraces may cause enough additional infiltration of water into the soil to act as a lubricant and encourage slope failure. SCS discoourages the installation of terraces where such conditions exist.

Comment: Clarification is needed between this Program and the National Flood Insurance Program.

Response: The National Flood Insurance Program is administered by the Department of Housing and Urban Development, Federal

Insurance Administration. Through the National Flood Insurance Program, individuals in eligible communities may obtain flood insurance from insurance companies. A subsidized premium is established for flood prone properties which existed prior to the date of community eligibility. Criteria for eligibility and other information can be obtained by requesting information from Federal Insurance Administration, U.S. Department of Housing and Urban Development, Washington, D.C. 20410.

Emergency assistance as authorized by Section 216 of the Flood Control Act of 1950 is administered by the Soil Conservation Service, U. S. Department of Agriculture. Financial and technical assistance is given to communities and other sponsors to help correct the physical remnant conditions of a fire, flood, wind, tornado, earthquake, landslide, or other natural force which, if uncorrected, whould threaten lives and property.

Comment: An EIS may not be necessary for a program designed to neutralize the effects of national disaster.

Response: The need for a program EIS was expressed in coodination with otherfederal agencies. Concern was expressed for potential adverse impacts that may be caused by installation of emergency measures. Preparation of a program EIS is consistent with Watersheds Memorandum 124 (Rev 1.) issued July 24, 1973 (see Appendix B), SCS Guidelines (Title 7CFR650, Subpart A), and Council on Environmental Quality Guidelines (Title 40CFR1500).

Comment: An EIS should be prepared for each individual emergency assistance given or, as a minimum, for those measures where adverse environmental impacts are anticipated. Justification of emergency measures should be included. Also, the introduction to the final EIS should identify emergency assistance as an "on-going" program.

Response: Section 1 of the final EIS has been revised to reflect the program nature of the EIS as suggested in the comment. The final EIS is consistent with the Council on Environmental Quality's guidelines (Title 40CFR1500) and SCS guidelines (Title 7CFR650, subpart a) concerning an EIS for an on-going program. An overall program EIS is used because preparation of individual EIS's would unduly delay emergency assistance causing further adverse impacts prior to assistance. An environmental assessment is made to reflect adverse impacts anticipated by installation of emergency measures. Where adverse impacts are caused, alternative solutions are to be studied and coordination with other agencies intensified to avoid such losses, if possible. The need for individual emergency measures are documented in the report requesting funds which is prepared in coordination with sponsors and cooperating agencies.

Comment: To the extend that the debris and sediment accumulated is a result of the disaster, it should be removed in accordance with this program. However, it is imperative that specific situations in which such measures had EIS review in the past should not be authorized by Section 216. Preventive measures should be undertaken through existing authorities and not as an aspect of this program. Otherwise, Section 216 could be used to circumvent the EIS review procedure.

Response: Removal of sediment and debris from existing streams is usually considered to be eligible for emergency assistance, when sediment and debris deposited by some abrupt injury to a watershed and the accumulation thereof threatens life and property. SCS policy prohibits the use of emergency measure installation authorized for the purpose of solving water resource problems which existed prior to the disaster. Emergency assistance is not an attempt to circumvent EIS review procedures or to substitute a different approach to other programs. By means of this EIS, emergency assistance is consistent with CEQ guidelines, SCS guidelines, and the NEPA process.

Comment: The draft EIS was not made sufficiently available to private citizens and non-governmental agencies.

Response: The draft EIS was distributed to 32 individuals and non-government agencies by the Washington Office of SCS. In addition to this distribution, the draft EIS was sent to 50 SCS State Conservationist plus the Director of the Carribean Area for further instate distribution. In total, approximately 500 copies of the draft EIS have been distributed for review. SCS published a notice of availability of the draft EIS in the April 15, 1974 issue of the Federal Register.

Comment: The final EIS should include an explanation of how responsibility for maintenance of emergency measures is assigned.

Response: When local organizations agree to sponsor an emergency measure, they must also agree to maintain the measure after it has been installed. Should two or more organizations sponsor an emergency measure, it is up to the organizations to reach an understanding as to which one will accept operation and maintenance responsibilities prior to the installation of the emergency measure.

Comment: An annual refiling of the EIS should be made to update information, construction techniques, and review by interested parties.

Response: The program EIS is for on-going emergency assistance and is consistent with CEQ quidelines and SCS Guidelines. If additional supplemental appropriations are received, the Council on Environmental Quality will be notified accordingly.

Approved by: _____ Date: OCT 10 1975

R. M. Davis, Administrator
Soil Conservation Service

LIST OF APPENDICES

Appendix A - List of References
Appendix B - Watersheds Memorandum 124, Revision 1, dated July 24, 1973
Appendix C - 1970 Edition Title 33 USC 701b
Appendix D - Letters of comment received on the draft environmental statement

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UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
Washington, D. C. 20250

WS-124 (Rev. 1)

July 24, 1973

WATERSHEDS MEMORANDUM-124 (Rev. 1)

From: Kenneth E. Grant
Administrator

Re: Emergency Watershed Protection Authorized by Section 216, Flood Control Act of May 17, 1950

This memorandum states Soil Conservation Service (SCS) policy and provides guidelines for administering Emergency Watershed Protection (EWP). Watersheds Memorandum-124, dated November 9, 1972, is canceled.

Authorization

Emergency watershed protection is authorized by Section 7 of the Flood Control Act approved June 28, 1938, as amended by Section 15 of the Flood Control Act approved December 22, 1944, as amended by Section 216 of the Flood Control Act of 1950, Public Law 81-516 (33 USC 701b-1). The complete text of the current authority is:

> "The Secretary of Agriculture is hereby authorized in his discretion to undertake such emergency measures for runoff retardation and soil-erosion prevention as may be needed to safeguard lives and property from floods and the products of erosion on any watershed whenever fire or any other natural element or force has caused a sudden impairment of that watershed: Provided, that not to exceed $300,000 out of any funds heretofore or hereafter appropriated for the prosecution by the Secretary of Agriculture of works of improvement or measures for run-off and water-flow retardation and soil-erosion prevention on watersheds may be expended during any one fiscal year for such emergency measures."

Supplemental appropriations have sometimes been approved for large-scale emergencies to supplement the $300,000.

Conditions Essential to Furnishing Aid

A. An emergency exists because a watershed is suddenly impaired by flood, fire, wind, earthquake, or other natural cause and consequently lives and property are endangered by floodwater, erosion, or sediment discharge. The emergency area need not be declared a national disaster area to be eligible for emergency watershed protection. Emergency watershed protection is applicable to small-scale, localized disasters as well as to large-scale disasters. Emergency watershed protection funds are not to be used to perform normal operation and maintenance.

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B. The sponsoring organization agrees to its responsibilities as set forth in this memorandum.

C. Arrangements are made to coordinate work with other emergency programs, including those administered by the Agricultural Stabilization and Conservation Service, Farmers Home Administration, U.S. Army Corps of Engineers, Small Business Administration, and Federal Disaster Assistance Administration (FDAA). Such coordination is to be extensive enough to avoid duplication of assistance and may include specific agreements on the work each agency is to do. During disasters, USDA agencies will respond to FDAA, which has overall responsibility. If FDAA transfers this responsibility to the Federal Regional Council during the recovery period, USDA agencies will be responsible to the council. USDA operations will be coordinated through the USDA state and county emergency committees.

For information on federal emergency projects, consult the regional office of FDAA (see Attachment 1 for a list of addresses and the areas served by each).

Eligible Measures

Emergency measures are those taken to protect lives and property from flooding and the products of flooding, erosion, or sediment. These measures include work such as: establishing vegetative cover such as grass, shrubs, or trees on denuded land; stabilizing eroded banks using structural and/or vegetative means; removing debris; opening watercourses where flow is dangerously restricted; constructing protective diversions, dikes, or jetties; stabilizing banks with rip-rap, cribbing, or piling; using land stabilization measures such as terraces; repairing dikes, dams, or other water control structures; and constructing emergency road stabilization measures such as water bars. Permanent or long-life measures such as floodwater-retarding structures, channel construction, log booms, debris basins, and grade stabilization structures may be installed as emergency measures if they are the most feasible way to obtain emergency protection. It should be understood that emergency watershed protection is work done to safeguard lives and property in emergency situations and not to solve watershed problems that existed prior to the natural disaster.

General Administration

Administration of Emergency Watershed Protection has been delegated to the Soil Conservation Service, which is to provide overall administrative direction and guidance. Program responsibility has been assigned to the Deputy Administrator for Water Resources.. The Watershed Operations Division is to provide staff leadership. The Administrator will allot funds to the state conservationists and to the directors of the regional technical service centers (RTSC). State conservationists are to administer the program within their respective states. RTSC directors are to provide technical assistance and coordinate emergency operations to insure a consistent and efficient program. Funds are to be transferred by SCS to the Forest Service (FS) at the Washington level for work to be installed by the Forest Service or its cooperators.

Participation by Others

A. Forest Service

The Forest Service has the responsibility to administer, under the general program criteria and procedures established by SCS, the forestry aspects of emergency watershed protection on the National Forest System and rangelands within national forest boundaries, on adjacent rangelands that are administered under formal agreement, and on other forest lands.

If such lands are involved, the emergency work is to be done by SCS and/or FS in the quickest and most economical manner. The extent and urgency of going workload, expertise, availability of personnel and other resources, and other pertinent factors are to be considered in determining which agency will carry out the work. The Forest Service in carrying out these responsibilities works cooperatively with SCS and other federal, state, or local government agencies.

The Forest Service carries out emergency work with its own personnel and equipment or through agreements with state or local agencies or individuals. Details on Forest Service operations are contained in FS Manual 3540.

B. State and Local

Emergency work on nonfederal land is to be sponsored by a local or state organization, such as a conservation district or a county, town, or state agency. As a condition to receiving assistance, the sponsoring organization is to have authority, is to agree to provide needed land rights, water rights, and permits and to accept responsibility for operation and maintenance, if required, all without cost to the emergency watershed protection funds.

The state environmental, natural resource, fish and game, and other agencies should participate in planning and coordinating emergency work.

An entity of state government such as the conservation district, town or county government, or state agency should assist in selecting the priorities of eligible projects.

If operation and maintenance is required in order for an emergency measure to accomplish its intended purpose or to insure that it will not itself become hazardous, the sponsors must agree in writing to accept all responsibility for operation and maintenance. The federal land-managing agency is to assume land rights and operation and maintenance responsibilities for emergency protection measures installed on federal land.

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Program Administration

A. State Guidelines

Within the scope of this memorandum, state conservationists are to assign responsibilities and develop procedures for administering emergency work in their respective states.

B. Investigations and Fund Request

Emergency situations resulting from a sudden impairment of a watershed due to natural causes should be investigated immediately to determine if emergency watershed protection, as defined by this memorandum, is justified. The state conservationist is to notify the Administrator as soon as possible if emergency watershed protection appears applicable. If the investigation justifies emergency watershed protection as defined in this memorandum, the state conservationist is to submit a report to the Administrator and request funds. If federal land is involved, the report is to be signed by the field representatives of the land-managing agencies. The report is to include:

1. Identification of members of the investigating team and the organizations represented.

2. Identification and location of watershed.

3. Cause and date of watershed impairment (fire, earthquake, tornado, etc.).

4. Map showing:

    a. Land ownership or control, e.g., national forest, Bureau of Land Management, private.

    b. Area damaged and severity of damage.

    c. Location and type of potential damage that could be prevented or alleviated by emergency treatment.

    d. Area to receive emergency treatment and measure(s) proposed.

5. Description of potential damages from flooding and the products of erosion including:

    a. Kind of health hazards anticipated and number of people concerned.

    b. Type and ownership (private, public, or quasi-public) of property endangered, estimated value at time of investigation, and estimated value of damages to be avoided by installing emergency measures.

6. Estimated kind, quantity, and cost of emergency measures recommended and dates for starting and completing installation in order to be more effective.

7. Description of the environmental impact expected from installation of the recommended measures. Include a summary of any comments obtained from other agencies having special expertise if consulted during investigation.

8. Identification of potential sponsors.

9. Extent of ability and willingness of sponsors, concerned individuals, local groups, and state and local governmental units to participate in the installation of the emergency measures.

10. A list of other federal and state programs that are involved. Show type and extent of involvement of each.

11. A statement that FDAA has been consulted and that the assistance recommended in the report is being coordinated with other emergency assistance.

12. The amount of emergency funds recommended for approval.

13. Table (See Attachment 2).

14. Additional maps, tables, charts, or photographs, if necessary.

15. The anticipated need for temporary authority modifications such as for purchasing and contracting, for personnel needs, and for travel required to efficiently accomplish the planned emergency work. Include adequate justification so modifications can be considered if funds are approved.

This report is to be concise but adequate to support emergency action. It is realized that usually only general information is available.

The scope and detail of the report should vary with the scope of the emergency.

C. Environment

Environmental aspects of emergency work are to be given careful consideration. Adverse effects on the environment are to be avoided and favorable effects encouraged to the maximum extent practicable. Stream work is to be localized to critical areas. Entire reaches are not usually to be reconstructed. Streams are not to be unnecessarily straightened or widened. Meanders are to be retained. Existing vegetation and other natural features are to be preserved whenever possible. To the maximum extent practicable, measures and designs should be used that have fish and wildlife value, bring favorable scenic results, or

otherwise add to the quality of the environment. Construction techniques should be used that minimize erosion and sedimentation.

The Washington Office will prepare a program environmental statement, in compliance with Section 102(2)(C) of the National Environmental Policy Act of 1969, covering all EWP work. The Administrator will notify the chairman of CEQ by letter when emergency work is to be undertaken. This notification will become a supplement to the environmental impact statement.

State conservationists are to notify the regional offices of the Bureau of Sport Fisheries and Wildlife, the Environmental Protection Agency, and the state fish and game and other appropriate agencies of anticipated emergency watershed protection and invite their assistance in implementing the emergency work. Need for early action will be stressed to these agencies and their cooperation obtained as soon as possible. Telephone contacts are acceptable but are to be followed by a written announcement and request for assistance. If possible, a formal reply is to be obtained from each agency.

Other special expertise needed such as on archeological or historical matters is to be solicited from the appropriate agencies or groups. Environmental and other considerations are to be integrated into emergency work using the interdisciplinary planning approach.

D. Technical Procedures, Clearances, and Approvals

Technical procedures and requirements are to be developed and coordinated through the RTSC's. Existing job approval authorities are to remain in force unless modified in the usual manner. Special rush clearances can be made by telephone.

E. Plan

A plan should be used to expedite and coordinate emergency operations. The plan should include information such as identification and location of individual projects, estimated costs, priorities, sponsors, determination as to who is to do the work, and any other information needed to efficiently accomplish emergency watershed protection.

F. Land Rights

Land rights must be acquired as provided in Part 2, Section 2000, Administrative Services Handbook (ASH). A certification that all necessary land rights have been obtained must be made on Form SCS-AS-78 (see 2204.0252, ASH).

G. Procurement

SCS usually does emergency work by contract, equipment rental, and/or SCS-employed labor. Sometimes emergency work may be done by the sponsors. Procurement for emergency work is to be consistent with current SCS policy. Wage rates should be requested as soon as the needs can be anticipated.

H. Agreements

When required, relocation agreements and project agreements are to be prepared as set forth in Section 2000, ASH.

A project agreement is required if the sponsors are to perform the work or to cost share in work to be performed by SCS.

I. Review and Spot Checking

Emergency field operations are to be reviewed periodically by the state office staff to determine compliance with policy and program effectiveness. These reviews are to include spot checking of individual measures if discrepancies are found. Corrective measures are to be taken and adjustments made to avoid similar problems on subsequent work.

J. Reports

The state conservationist is to maintain a log of emergency work (see attachment 3) and submit monthly reports consisting of a copy of the log and a narrative describing any unusual reportable situations to the Administrator with a copy to the director of the RTSC. The final monthly report is to summarize the entire emergency operation describing unusual situations that need documenting or that might provide useful information for future emergency operations.

Kenneth E. Grant
Administrator

3 Attachments

WS-124 (Rev. 1)
Attachment 1

FEDERAL DISASTER ASSISTANCE ADMINISTRATION, REGIONAL OFFICES
DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

Region 1 - Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont

Regional Director
Federal Disaster Assistance Administration
Department of Housing and Urban Development
JFK Federal Building
Room 2003-E
Boston, Massachusetts 02203

Region 2 - New York, New Jersey, Puerto Rico, and the Virgin Islands

Regional Director
Federal Disaster Assistance Administration
Department of Housing and Urban Development
26 Federal Plaza
Room 1349
New York, New York 10007

Region 3 - Delaware, Maryland, Pennsylvania, Virginia, West Virginia, and the District of Columbia

Regional Director
Federal Disaster Assistance Administration
Department of Housing and Urban Development
2 Penn Center Plaza, Suite 915
Philadelphia, Pennsylvania 19102

Region 4 - Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee

Regional Director
Federal Disaster Assistance Administration
Department of Housing and Urban Development
Continental Insurance Building, Suite 750
1375 Peachtree Street, NE
Atlanta, Georgia 30309

Region 5 - Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin

Regional Director
Federal Disaster Assistance Administration
Department of Housing and Urban Development
300 S. Wacker Drive, Room 520
Chicago, Illinois 60606

WS-124 (Rev. 1) - Attachment 1 (cont.)

Region 6 - Arkansas, Louisiana, Oklahoma, New Mexico, and Texas

Regional Director
Federal Disaster Assistance Administration
Department of Housing and Urban Development
Federal Building
1100 Commerce Street, Room 13028
Dallas, Texas 75202

Region 7 - Iowa, Kansas, Missouri, and Nebraska

Regional Director
Federal Disaster Assistance Administration
Department of Housing and Urban Development
Trader National Bank Building
1125 Grand Avenue, Room 1500
Kansas City, Missouri 64106

Region 8 - Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming

Regional Director
Federal Disaster Assistance Administration
Department of Housing and Urban Development
Building 67, Room 370
Denver Federal Center
Denver, Colorado 80225

Region 9 - California, Nevada, Arizona, and Hawaii

Regional Director
Federal Disaster Assistance Administration
Department of Housing and Urban Development
120 Montgomery
San Francisco, California 94104

Region 10 - Alaska, Oregon, Washington, and Idaho

Regional Director
Federal Disaster Assistance Administration
Department of Housing and Urban Development
Arcade Building, Room M-16
1319 Second Avenue
Seattle, Washington 98101

Appendix B

WS-124 (Rev. 1)
Attachment 2

SUMMARY OF EMERGENCY MEASURES RECOMMENDED

State: Watershed Name: Date:

Measures and agency identification	Unit	Quantity	Unit cost	Cost of measures	Source of funds		
					Section 216	Other federal (name)	Nonfederal (name)
NONFEDERAL LAND							
SCS							
FS							
Subtotal							
FEDERAL LAND							
SCS							
FS							
Subtotal							
TOTAL SCS							
TOTAL FS							
GRAND TOTAL							

REMARKS (Necessary explanations should be handled by footnote under remarks)

Appendix B

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

WS-124 (Rev. 1)
Attachment 3

216 PROJECT LOG
Prepared by:

Sheet 1 of __

Project name & location	Date received	Project approval date	Cost estimate	Type contract		Date invitation issued	Date contract award	Initial contract price	Complet. date	Final cost	Type of Work	Remarks
				Formal	Purchase order							

AMENDMENTS

1954—Act Aug. 4, 1954, repealed provisions conferring authority on the Department of Agriculture under the direction of the Secretary of Agriculture to make preliminary examinations and surveys and to prosecute works of improvement for runoff and waterflow retardation and soil erosion prevention on the watersheds of rivers and other waterways.

1941—Act Aug. 18, 1941, reenacted without change portion of section preceding semicolon.

1938—Act June 28, 1938, reenacted without change portion of section preceding semicolon.

SAVINGS PROVISION

Section 7 of act Aug. 4, 1954, which amended this section by repealing provisions relating to the Department of Agriculture, provides in part that: "(a) the authority of that Department of Agriculture, under the direction of the Secretary, to prosecute the works of improvement for runoff and waterflow retardation and soil erosion prevention authorized to be carried out by the Department by the act of December 22, 1944 (58 Stat. 887), as amended [section 701a–1 of this title], and (b) the authority of the Secretary of Agriculture to undertake emergency measures for runoff retardation and soil erosion prevention authorized to be carried out by section 7 of the act of June 28, 1938 (52 Stat. 1215), as amended by section 216 of the act of May 17, 1950 (64 Stat. 163) [section 701b–1 of this title], shall not be affected by the provisions of this section."

CROSS REFERENCES

River, harbor, and other waterways, supervision of, see section 540 of this title.

SECTION REFERRED TO IN OTHER SECTIONS

This section is referred to in sections 701b–1, 701b–2, 701b–4, 701b–6, 701b–7, 701c–1, 701e, 701f–1, 701j, 702a–12 of this title.

§ 701b. Same; supervision of Secretary of the Army; reclamation projects unaffected.

Federal investigations and improvements of rivers and other waterways for flood control and allied purposes shall be under the jurisdiction of and shall be prosecuted by the Department of the Army under the direction of the Secretary of the Army and supervision of the Chief of Engineers, except as otherwise provided by Act of Congress; and in his reports upon examinations and surveys, the Secretary of the Army shall be guided as to flood-control measures by the principles set forth in section 701a of this title in the determination of the Federal interests involved: *Provided*, That the foregoing grant of authority shall not interfere with investigations and river improvements incident to reclamation projects that may now be in progress or may be hereafter undertaken by the Bureau of Reclamation of the Interior Department pursuant to any general or specific authorization of law. (June 22, 1936, ch. 688, § 2, 49 Stat. 1570; June 28, 1938, ch. 795, § 1, 52 Stat. 1215; Aug. 18, 1941, ch. 377, § 1, 55 Stat. 638; Aug. 4, 1954, ch. 656, § 7, 68 Stat. 668.)

CODIFICATION

The Department of War was designated the Department of the Army, and the title of the Secretary of War was changed to Secretary of the Army by section 205 (a) of act July 26, 1947, ch. 343, title II, 61 Stat. 501. Section 205 (a) of act July 26, 1947, was repealed by section 53 of act Aug. 10, 1956, ch. 1041, 70A Stat. 641. Section 1 of act Aug. 10, 1956, enacted "Title 10, Armed Forces", which in sections 3011—3013 continued the military Department of the Army under the administrative supervision of a Secretary of the Army.

§ 701b–1. Transfer of jurisdiction in certain cases to Department of Agriculture.

In order to effectuate the policy declared in sections 701a and 701b of this title, and to correlate the program for the improvement of rivers and other waterways by the Department of the Army with the program for the improvement of watersheds by the Department of Agriculture, works of improvement for measures of run-off and water-flow retardation and soil-erosion prevention on the watersheds of waterways, for which works of improvement for the benefit of navigation and the control of destructive floodwaters and other provisions have been adopted and authorized to be prosecuted under the direction of the Secretary of the Army and supervision of the Chief of Engineers, are authorized to be prosecuted by the Department of Agriculture under the direction of the Secretary of Agriculture and in accordance with plans approved by him. The Secretary of Agriculture is authorized in his discretion to undertake such emergency measures for run-off retardation and soil-erosion prevention as may be needed to safeguard lives and property from floods and the products of erosion on any watershed whenever fire or any other natural element or force has caused a sudden impairment of that watershed: *Provided*, That not to exceed $300,000 out of any funds heretofore or hereafter appropriated for the prosecution by the Secretary of Agriculture of works of improvement or measures for run-off and water-flow retardation and soil-erosion prevention on watersheds may be expended during any one fiscal year for such emergency measures. For prosecuting said work and measures there is authorized to be

appropriated the sum of $10,000,000 to be expended at the rate of $2,000,000 per annum during the five-year period ending June 30, 1944: *Provided*, That such works and measures which are herein authorized to be prosecuted by the Department of Agriculture may be carried out on the watersheds of the Rio Grande and Pecos Rivers subject to the proviso in section 701b of this title. (June 28, 1938, ch. 795, § 7, 52 Stat. 1225; Dec. 22, 1944, ch. 665, § 15, 58 Stat. 907; May 17, 1950, ch. 188, title II, § 216, 64 Stat. 184.)

CODIFICATION

The Department of War was designated the Department of the Army, and the title of the Secretary of War was changed to Secretary of the Army by section 205 (a) of act July 26, 1947, ch. 343, title II, 61 Stat. 501. Section 205 (a) of act July 26, 1947, was repealed by section 53 of act Aug. 10, 1956, ch. 1041, 70A Stat. 641. Section 1 of act Aug. 10, 1956, enacted "Title 10, Armed Forces", which in sections 3011—3013 continued the military Department of the Army under the administrative supervision of a Secretary of the Army.

AMENDMENTS

1950—Act May 17, 1950, in second sentence, increased from $100,000 to $300,000 the limitation on the amount that may be expended in any locality in any one year.

1944—Act Dec. 22, 1944, added provisions authorizing Secretary of Agriculture to undertake emergency work and limiting amount of annual expenditures for such work.

SAVINGS PROVISION

Authority of Secretary of Agriculture under this section as unaffected by repeal of Secretary's authority under section 701b of this title, see "Savings Provision" note under section 701b.

SECTION AS UNAFFECTED BY SUBMERGED LANDS ACT

Provisions of this section as not amended, modified or repealed by the Submerged Lands Act, see section 1303 of Title 43, Public Lands.

CROSS REFERENCES

Additional appropriation, see note under section 701f–1 of this title.

SECTION REFERRED TO IN OTHER SECTIONS

This section is referred to in sections 701b–4, 701c–1, 701f–1, 701j of this title.

§ 701b–2. Same; cooperation by Secretaries of the Army and Agriculture; expenditures.

In carrying out the purposes of sections 701a, 701b, 701c, 701d to 701f and 701h of this title, as amended and supplemented, the Secretary of the Army and the Secretary of Agriculture are authorized to cooperate with institutions, organizations, and individuals, and to utilize the services of Federal, State, and other public agencies, and to pay by check to the cooperating public agency, either in advance or upon the furnishing or performance of said services, all or part of the estimated or actual cost thereof; and to make expenditures for personal services and rent in the District of Columbia and elsewhere, for purchase of reference and law books and periodicals, for printing and binding, for the purchase, exchange, operation, and maintenance of motor-propelled passenger-carrying vehicles and motorboats for official use, and for other necessary expenses. The provisions of this section shall be applicable to any funds heretofore appropriated for the prosecution by the Secretary of Agriculture of works of improvement for measures of run-off and water-flow retardation and soil-erosion prevention upon watersheds. (June 28, 1938, ch. 795, § 5, 52 Stat. 1223; Aug. 18, 1941, ch. 377, § 8, 55 Stat. 650.)

CODIFICATION

The Department of War was designated the Department of the Army and the title of the Secretary of War was changed to Secretary of the Army by section 205 (a) of act July 26, 1947, ch. 343, title II, 61 Stat. 501. Section 205 (a) of act July 26, 1947, was repealed by section 53 of act Aug. 10, 1956, ch. 1041, 70A Stat. 641. Section 1 of act Aug. 10, 1956, enacted "Title 10, Armed Forces", which in sections 3011—3013 continued the military Department of the Army under the administrative supervision of a Secretary of the Army.

AMENDMENTS

1941—Act Aug. 18, 1941, changed the reference near the beginning of this section, and added the last sentence to the section.

TRANSFER OF FUNCTIONS

All functions of all officers, agencies and employees of the Department of Agriculture were transferred, with certain exceptions, to the Secretary of Agriculture by 1953 Reorg. Plan No. 2, § 1, eff. June 4, 1953, 18 F. R. 3219, 67 Stat. 633, set out in the Appendix to Title 5, Government Organization and Employees.

SECTION REFERRED TO IN OTHER SECTIONS

This section is referred to in sections 701b–4, 701c–1, 701f–1, 701j, 702a–12 of this title.

§ 701b–3. Examinations and surveys; availability of appropriations.

Funds heretofore or hereafter appropriated for construction and maintenance of flood-control works by the Department of the Army shall be available for expenditure by the Department of the Army in making examinations and surveys for flood control heretofore or hereafter authorized, or in preparing reports in review thereof as authorized by law, in addition to funds heretofore authorized to be expended for such purposes by the Department of the Army. (Aug. 11, 1939, ch. 699, § 2, 53 Stat. 1414.)

CODIFICATION

The Department of War was designated the Department of the Army and the title of the Secretary of War was changed to Secretary of the Army by section 205 (a) of act July 26, 1947, ch. 343, title II, 61 Stat. 501. Section 205 (a) of act July 26, 1947, was repealed by section 53 of act Aug. 10, 1956, ch. 1041, 70A Stat. 641. Section 1 of act Aug. 10, 1956, enacted "Title 10, Armed Forces", which in sections 3011—3013 continued the military Department of the Army under the administrative supervision of a Secretary of the Army.

CROSS REFERENCES

Discontinuance of preliminary examination reports, see section 701b–8a of this title.

SECTION REFERRED TO IN OTHER SECTIONS

This section is referred to in section 701b–4 of this title.

§ 701b–4. Same; administration of surveys; number authorized; reports.

The surveys authorized to be performed under the direction of the Secretary of the Army as well as all duties performed by the Chief of Engineers under the direction of the Secretary of the Army shall be functions of the Engineer Corps, United States Army, and its head, to be administered under the direction of the Secretary of the Army and the supervision of the Chief of Engineers except as otherwise specifically provided by Congress: *Provided*, That the power and authority conferred by sections 701b, 701b–1, 701b–2, 701c–1, 701f–1, 701i, 701j, 702a–1½,

702a–11, and 706 of this title, and previously conferred, upon the Federal Power Commission shall remain in full force and effect: *Provided*, That no preliminary examination, survey, project, or estimate for new works other than those designated in sections 558b–1, 701b–3, 701b–4, 701c–1, 701g, and 707 of this title or some prior Act or joint resolution shall be made: *Provided further*, That after the regular or formal reports made as required by law on any examination, survey, project, or work under way or proposed, are submitted, no supplemental or additional report or estimate shall be made unless authorized by law. (Aug. 11, 1939, ch. 699, § 6, 53 Stat. 1415.)

CODIFICATION

The Department of War was designated the Department of the Army and the title of the Secretary of War was changed to Secretary of the Army by section 205 (a) of act July 26, 1947, ch. 343, title II, 61 Stat. 501. Section 205 (a) of act July 26, 1947, was repealed by section 53 of act Aug. 10, 1956, ch. 1041, 70A Stat. 641. Section 1 of act Aug. 10, 1956, enacted "Title 10, Armed Forces", which in sections 3011—3013 continued the military Department of the Army under the administrative supervision of a Secretary of the Army.

TRANSFER OF FUNCTIONS

All executive and administrative functions of the Federal Power Commission were, with certain reservations, transferred to the Chairman of such Commission, with authority vested in him to authorize their performance by any officer, employee, or administrative unit under his jurisdiction, by 1950 Reorg. Plan No. 9, §§ 1, 2, eff. May 24, 1950, 15 F.R. 3175, 64 Stat. 1265, set out in the Appendix to Title 5, Government Organization and Employees.

CROSS REFERENCES

Discontinuance of preliminary examination reports, see section 701b–8a of this title.

§ 701b–5. Same; appropriations subject to priority restrictions.

CODIFICATION

Section, act Mar. 31, 1945, ch. 45, § 1, 59 Stat. 41, was from the War Department Civil Appropriation Act, 1946, and was not repeated in subsequent appropriation acts. Similar provisions were contained in acts June 28, 1944, ch. 275, § 1, 58 Stat. 329; June 2, 1943, ch. 115, § 1, 57 Stat. 96.

§ 701b–6. Same; examinations and surveys by Secretary of Agriculture.

That, in order to further the declaration of policy and principles declared in sections 701a and 701b of this title, and to supplement the preliminary examinations and surveys which the Secretary of the Army has heretofore been, or is hereafter, authorized and directed to make of waterways with a view to the control of their floods, the Secretary of Agriculture be, and he is, authorized and directed to cause preliminary examinations and surveys to be made for run-off and water-flow retardation and soil-erosion prevention on the watersheds of said waterways, the costs thereof to be paid from appropriations heretofore or hereafter made for such purposes. (Aug. 28, 1937, ch. 877, § 3, 50 Stat. 877; Jan. 19, 1948, ch. 2, § 1, 62 Stat. 4.)

CODIFICATION

The Department of War was designated the Department of the Army and the title of the Secretary of War was changed to Secretary of the Army by section 205 (a) of act July 26, 1947, ch. 343, title II, 61 Stat. 501. Section 205 (a) of act July 26, 1947, was repealed by section 53 of act Aug. 10, 1956, ch. 1041, 70A Stat. 641. Section 1 of act Aug. 10, 1956, enacted "Title 10, Armed Forces", which in sections 3011—3013 continued the military Department of the Army under the administrative supervision of a Secretary of the Army.

AMENDMENTS

1948—Act Jan. 19, 1948, inserted "or is hereafter" following "heretofore been" to make section applicable to future preliminary surveys and examinations.

CROSS REFERENCES

Discontinuance of preliminary examination reports, see section 701b–8a of this title.

§ 701b–7. Same; supplemental reports to Senate and House Public Works Committee.

After the Secretary of Agriculture has submitted to Congress a regular or formal report made on any examination or survey, pursuant to sections 701a, 701b, 701c, 701d to 701f, and 701h of this title as supplemented, a supplemental, additional, or review report or estimate may be made if authorized by law or by resolution of the Committee on Public Works of the House of Representatives or the Committee on Public Works of the Senate. (Jan. 19, 1948, ch. 2, § 2, 62 Stat. 4.)

CROSS REFERENCES

Discontinuance of preliminary examination reports, see section 701b–8a of this title.

§ 701b–8. Same; submission of report by Chief of Engineers.

It is declared to be the policy of the Congress that the following provisions shall be observed:

No project or any modification not authorized, of a project for flood control or rivers and harbors, shall be authorized by the Congress unless a report for such project or modification has been previously submitted by the Chief of Engineers, United States Army, in conformity with existing law. (Sept. 3, 1954, ch. 1264, title II, § 202, 68 Stat. 1256.)

CODIFICATION

Section comprises last two paragraphs of section 202 of act Sept. 3, 1954. First paragraph of section 202 is set out as a note under section 701–1 of this title.

SIMILAR PROVISIONS

Similar provisions were contained in the following prior acts:

1950—May 17, 1950, ch. 188, title II, § 202, 64 Stat. 170.
1948—June 30, 1948, ch. 771, title II, § 202, 62 Stat. 1175.
1946—July 24, 1946, ch. 596, § 2, 60 Stat. 641.

CROSS REFERENCES

Discontinuance of preliminary examination reports, see section 701b–8a of this title.

§ 701b–8a. Same; discontinuance of preliminary examination reports.

For preliminary examinations and surveys authorized in previous river and harbor and flood control Acts, the Secretary of the Army is directed to cause investigations and reports for flood control and allied purposes, to be prepared under the supervision of the Chief of Engineers in the form of survey reports, and that preliminary examination reports shall no longer be required to be prepared. (Pub. L. 85–500, title II, § 208, July 3, 1958, 72 Stat. 319.)

REFERENCES IN TEXT

Previous river and harbor and flood-control Acts, referred to in text, means those acts prior to the River and Harbor Act of 1958 and the Flood Control Act of 1958, titles I and II of Pub. L. 85–500.

§ 701b–9. Availability of appropriations for expenses incident to operation of power boats or vessels; expenses defined; certification of expenditures.

Hereafter no appropriation under the Corps of Engineers shall be available for any expenses incident to operating any power-driven boat or vessel on other than Government business, and that Government business shall be construed to include transportation, lodging, and subsistence on inspection trips of Federal and State officials, having a public interest in authorized or proposed improvements for river and harbor and flood control, and any expenses incurred therefor shall be chargeable to river and harbor and flood control appropriations heretofore or hereafter made under rules and regulations to be prescribed by the Chief of Engineers: *Provided*, That such expenditures shall be certified by the Division Engineer as necessary and proper expenditures. (July 31, 1947, ch. 411, § 1, 61 Stat. 688.)

CODIFICATION

Section is also set out as section 575 of this title.

§ 701b–10. Revolving fund; establishment; availability; reimbursement; transfer of funds; limitation.

There is established a revolving fund, to be available without fiscal year limitation, for expenses necessary for the maintenance and operation of the plant and equipment of the Corps of Engineers used in civil works functions, including acquisition of plant and equipment, maintenance, repair, and purchase, operation, and maintenance of not to exceed four aircraft at any one time, temporary financing of services finally chargeable to appropriations for civil works functions, and the furnishing of facilities and services for military functions of the Department of the Army and other Government agencies and private persons, as authorized by law, $100; and in addition, the Secretary of the Army is authorized to provide capital for the fund by capitalizing the present inventories, plant and equipment of the civil works functions of the Corps of Engineers. The fund shall be credited with reimbursements or advances for the cost of equipment, facilities, and services furnished, at rates which shall include charges for overhead and related expenses, depreciation of plant and equipment, and accrued leave: *Provided*, That on July 1, 1953, (1) the fund shall assume the assets, liabilities, and obligations of the Plant accounts, as carried on the records of the Corps of Engineers as of June 30, 1953, under the appropriations for "Maintenance and improvement of existing river and harbor works", "Flood control, general", and "Flood control, Mississippi River and tributaries", and (2) there shall be transferred from said appropriations to the fund amounts equivalent to the unexpended cash balances of the Plant accounts on June 30, 1953: *Provided further*, That the total capital of said fund shall not exceed $140,000,000. (July 27, 1953, ch. 245, § 101, 67 Stat. 199.)

CODIFICATION

Section is also set out as section 576 of this title.

APPENDIX D

Letters of Comments Received on the Draft Environmental Impact Statement

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, D.C. 20410

OFFICE OF THE ASSISTANT SECRETARY
FOR COMMUNITY PLANNING AND DEVELOPMENT

JUL 22 1974

IN REPLY REFER TO:
CSM

Mr. Kenneth E. Grant
Administrator
Soil Conservation Service
U.S. Department of Agriculture
Washington, D. C. 20250

RE: Emergency Watershed
Protection Program EIS

Dear Mr. Grant:

We have reviewed the draft of the Environmental Impact Statement prepared by your Agency, in accordance with your request, and offer the following comments.

1. The potential impact on population and growth characteristics of urbanized areas is not addressed. It is recommended that this be done.

2. It is believed that a more thorough assessment should be made of the potential impact on land use plans, policies, and controls, particularly those related to flood plain management.

3. It is recommended that a more thorough assessment be made of potential negative effects on the environment, particularly those related to ecological balances.

4. The potential impact on the citizen participation process with respect to the acceptance of the entire program or parts thereof is not addressed. Since citizen interest in this program extends far beyond local project areas it is recommended that this be included in the statement.

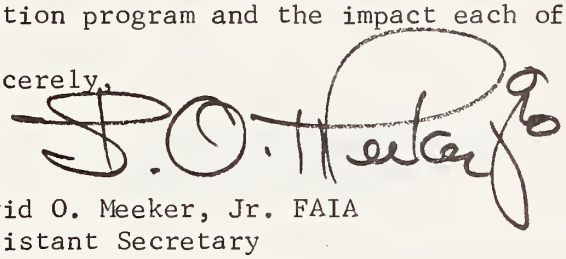
5. Too much emphasis has been placed on providing a detailed description of the effects of a disaster, whereas the purpose of the EIS is to determine what impact various emergency watershed protection measures will have on the post-disaster environment and not to determine the impact of disaster on the environment.

6. It is recommended that it be appropriately noted where certain proposed actions are assessed as having no positive or negative effect.

7. Paragraph 5b on page 22 pertaining to a complete watershed protection and flood prevention program fails to emphasize the costliness of such a program, and the unliklihood of such funds becoming available in sufficient quantity to permit adoption of this alternative under current economic and budgetary conditions.

Subject to the above comments, the draft EIS is considered to provide adequate coverage of the major alternatives to the existing emergency watershed protection program and the impact each of the alternatives would have.

Sincerely,



David O. Meeker, Jr. FAIA
Assistant Secretary

FEDERAL POWER COMMISSION
WASHINGTON, D.C. 20426

IN REPLY REFER TO:

MAY 10 1974

Mr. Kenneth E. Grant
Administrator
Soil Conservation Service
Department of Agriculture
Washington, D.C. 20250

Dear Mr. Grant:

This is in reply to your letter of April 17, 1974, addressed to Chairman Nassikas, requesting comments of the Federal Power Commission on a draft environmental impact statement for the emergency watershed protection program.

This program authorizes the installation of emergency measures as may be needed to protect lives and property during disastrous floods. Such measures would include land treatment, streambank protection, channel clearing, and repair of existing dams, dikes, and other water control structures.

These comments of the Federal Power Commission's Bureau of Power are made in accordance with the National Environmental Policy Act of 1969 and the August 1, 1973, Guidelines of the Council on Environmental Quality. Our principal concern with developments affecting land and water resources is the possible effect of such developments on bulk electric power facilities, including potential hydro-electric developments, and on natural gas pipeline facilities.

The staff review indicates that the emergency watershed measures, in general, would not significantly affect existing or potential bulk electric power facilities or natural gas pipeline facilities.

Very truly yours,

T. A. Phillips
Chief, Bureau of Power

UNITED STATES DEPARTMENT OF COMMERCE
The Assistant Secretary for Science and Technology
Washington, D.C. 20230

June 13, 1974

Mr. Kenneth E. Grant
Administrator
Soil Conservation Service
U.S. Department of Agriculture
Washington, D. C. 20250

RECEIVED MAIL ROOM
1974 JUN 17 PM 2:
SOIL CONSERVATION
WASHINGTON

Dear Mr. Grant:

The draft environmental impact statement for Emergency Watershed Protection Program which accompanied your letter of April 17, 1974, has been received by the Department of Commerce for review and comment.

The statement has been reviewed and the following comments are offered for your consideration.

In general the statement does not present sufficiently detailed information concerning the possible and probable environmental impacts on the various resources affected. Of course we realize that in a document on an entire program such as this, it would be an impossible task to cover every possibility that might arise during the life of the program. Still, to clarify the types of actions discussed in the statement, we suggest that to the extent possible specific examples from previous projects be included in the final statement.

Thank you for giving us an opportunity to provide these comments, which we hope will be of assistance to you. We would appreciate receiving a copy of the final statement.

Sincerely,

Sidney R. Galler

Sidney R. Galler
Deputy Assistant Secretary
for Environmental Affairs

AMERICAN REVOLUTION BICENTENNIAL 1776-1976

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

RECEIVED MAIL ROOM
1974 JUN 19 PM 3:41
SOIL CONSERVATION SERVICE
WASHINGTON, D.C.

OFFICE OF THE
ADMINISTRATOR

Mr. Kenneth E. Grant
Administrator
Soil Conservation Service
U.S. Department of Agriculture
Washington, D.C. 20250

Dear Mr. Grant:

The Environmental Protection Agency has reviewed the Draft Environmental Impact Statement (EIS) for the Emergency Watershed Protection Program Authorized by Section 214 of the Flood Control Act of 1950, Public Law 81-516 (33 USC 701b-1) We have classified our comments as Category LO-2. Specifically, this means we have no objections to the program, but we believe that more information should be provided in the EIS to fully assess the environmental impact of the program. The classification and the date of our comments will be published in the Federal Register in accordance with our responsibility to inform the public of our views on Federal actions under Section 309 of the Clean Air Act.

We believe that this is an important Soil Conservation Service program, necessary for protecting the environment during emergency situations. While the EIS covered most of the points adequately, there are some areas in the statement which should be clarified. We have enclosed our specific comments for your consideration.

We appreciated the opportunity to review the draft statement. If you have any questions regarding our comments, please do not hesitate to contact us.

Sincerely yours,

Sheldon Meyers

Sheldon Meyers
Director
Office of Federal Activities
(A-104)

Enclosure

Environmental Protection Agency Comments on
U. S. Department of Agriculture, Soil Conservation Service
Draft Environmental Impact Statement

Emergency Watershed Protection Program

1. The variety of disasters that can occur singularly, or in combinations, at any one time and in one area preclude precise planning for correcting specific types of damages. However, expediency in overcoming disasterous events is a must and can be achieved only if proper plans are made and followed. While this program attempts to present such a plan, it does not identify what appear to be critical elements in respect to the timing of actions. Specifically, while the first prerequisite is to appraise damages from the disaster and then to alert the Administrator, attention should be given to: (a) Preparations to assure that needed expertise is available to the agency to make such appraisals; (b) Identification, before the disaster, of who is responsible for what and in what respect to other agencies; and (c) Development of forms for expeditious reporting of the disaster to the Administrator as required. There probably can be no single form to cover all needs, but the mere concept can be a stimulant to identifying probable requirements. For example: (a) cause of disaster (tornado, flood, hurricane, fire, etc.); (b) nature of problem (landslide, blocked stream channel, etc.); (c) what has to be done and by whom (in-house, contract, etc).

2. Agencies which have similar or complementary emergency programs were cited as being consulted. The interaction of these programs, and how their energies and funds are utilized, should be defined. We commend the procedure that the SCS consult with EPA on matters which are in EPA's area of special expertise at the earliest possible time.

3. If the guidelines (provided under Program Administration, Part C of the Watershed Memorandum 124) are conscientiously followed, many adverse effects would be avoided, such as removal of channel canopy, destruction of stream bank and fish and wildlife habitat, and downstream flooding caused by construction work, etc. We, therefore, recommend that discussion of the following points, stated as guidelines, be expanded: (a) stream work is to be localized to critical areas;

(b) normally, entire reaches are not reconstructed; (c) streams are not to be unnecessarily straightened or widened; (d) meanders are to be retained; (e) existing vegetation and other natural features are to be preserved whenever possible. Since emergency protection should only include work done to safeguard life and property in emergency situations and not to solve watershed problems that existed prior to the natural disaster, only those actions of an emergency nature should be included in this program. Therefore, the radical and severe reparations, such as channelization, restructuring of streams, and major construction projects, which are substantial actions, should not be part of this program. They would fall under the requirements of the National Environmental Policy Act of 1969, necessitating that the impact on the environment be evaluated. To this end, a better definition is needed for the words "emergency" and/or "disaster".

4. Of the alternatives to the program, we feel that the complete watershed protection and flood prevention program is less desirable because it would delay the immediate alleviation of flood hazards by diverting program energies to areas that are not yet, and may never become, problems. The alternative of increased funding would appear to provide more flexibility for immediate action following disaster. We question whether the current funding level of $300,000 is adequate to support the program particularly since large supplemental appropriations have been required during recent years.

5. The report clearly denotes the necessity for expeditious revegetation in order to minimize soil loss and ultimate water quality degradation. However, the statement does not elaborate on possible methods that could be employed to accomplish this revegetation. We realize it may not be possible to include specifics due to the nature of the proposed action, but general guidelines would better aid the reviewer in assessing the program. The statement should include a discussion of such topics as the types of vegetation to be considered under varying situations, planting techniques, interagency coordination during revegetation, effectiveness of revegetation in retarding erosion during early and intermediate growing stages.

6. The statement was made that air quality might be degraded by burning of debris and disposal of other wastes. We believe that the final statement should include provisions for the prevention of unnecessary harm to the environment from such actions, and discuss alternative methods for disposal of solid wastes.

7. More discussion should be included on the increased downstream flooding or erosion that might result from such actions as debris removal. Implementation of emergency action upstream should be coordinated to prevent possible subsequent flooding downstream. The final statement should address this problem and also the action which may be taken to prevent or mitigate it.

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20201

JUN 13 1974

Mr. Kenneth E. Grant
Administrator
Soil Conservation Service
U. S. Department of Agriculture
Washington, D. C. 20250

Dear Mr. Grant:

This Department has reviewed the draft Environmental Impact Statement for the Emergency Watershed Protection Program.

On the basis of our review, we have determined that the statement serves as a good overall description of the adverse and beneficial aspects of the program. The environmental impacts of these ameliorative and reparative actions are described in general terms as are the irreversible commitments of resources. However, the draft statement does not mention the health effects which may or may not occur in the various restoration programs to mend damage occurring from floods, fires or other national elements or forces.

Although health considerations are not a factor at this point in time, environmental impacts may occur on an individual basis in such magnitude that may require an individual environmental impact statement or a supplement to the subject statement.

Thank you for the opportunity to comment of this statement.

Sincerely,

Charles Custard

Charles Custard
Director
Office of Environmental Affairs

United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

IN REPLY REFER TO:
ER-74/579

JUL 19 1974

Dear Mr. Grant:

Thank you for your letter of April 17, 1974, requesting our views and comments on the draft environmental statement for the Emergency Watershed Protection Program. Generally, we believe that the draft statement has adequately addressed the broad environmental issues of the Emergency Watershed Protection Program. We recognize that unknown complexities of specific flood prone areas and their respective environmental evaluations will have to be handled on a case-by-case basis. The desirability of a blanket environmental statement is apparent because the time required for preparing and reviewing an environmental statement must be reconciled with the brief period available to employ emergency measures effectively.

With this in mind, we suggest that the first section be enlarged to more fully identify the proposed action as an ongoing program and not a specific construction project. There should be a clear understanding that this is a statement on a program and not just on a number of potential emergency measures.

Guidelines and standards for typical emergency measures such as establishment of vegetation, removal of sediment and debris from channels, and realinement of flood channels could be presented in part 1, "Description," and would facilitate understanding and assessment of potential environmental impacts of the program.

We recognize the difficulties in preparing an environmental statement on a broad matter such as the emergency watershed protection program; however, many of the items covered do not reflect true conditions. As an example, statements are made concerning coordination with the Fish and Wildlife Service. Past experience with the program has not been fruitful in all cases. On streams where emergency measures were implemented, severe damage to fish and wildlife habitat

JOHNNY HORIZON '76

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has been found. It appears that Soil Conservation Environmental Guidelines have not been strictly followed in emergency situations.

In the section on impacts, page 13, and also in subsection 2d,, page 16, it is maintained that emergency measures can help to correct and prevent future, more severe impacts in the same watershed. Removal of sediment and debris and restoration of channel capacity, if carried out beyond what is necessary and not coupled with revegetation, can actually contribute to greater environmental impact. This should be acknowledged in this subsection.

Page 15, item 2d, the heading "Environmental impacts resulting from installation of channel debris and sediment removal, floodwater diversions, open channel and debris basins" is confusing. The words "installation of channel debris and sediment removal" seem inappropriate. For the sake of clarity, we suggest the heading for 2d read:

> "Environmental impacts resulting from installation of floodwater diversions, open channel and debris basin; and removal of channel debris and sediment."

On page 20, the first paragraph under item 3,"Relationship between short-term uses of man's environment and the maintenance and enhancement of long-term productivity" places emphasis on man's dependence on developed productive land. Benefits derived by man from unspoiled or under-developed areas are not addressed. We suggest the paragraph be paraphrased as follows:

> Man depends upon both under-developed and intensively managed land for living, working and playing. Much developed land is used so intensively that it rapidly loses its utility through over use, erosion, lowered fertility, etc. Without some form of conservation treatment or management, the usefulness of many developed lands will be lost through these degrading changes (48).

On page 20, paragraph 3, it states that "Developed property subject to increased flood risk could be abandoned and left for nature to heal, but then agricultural production and other intensive land uses would be shifted to land resources

which may be physically less suitable for development." While it is true the property subject to increased flood risk could be abandoned, we do not necessarily agree it has to be taken completely out of production. We believe some forms of agriculture are compatible flood plain uses, as is recreation, and therefore continued production should be considered an option.

On page 23, 3rd paragraph, the following is quoted:

> "Land use changes and flood plain management would have severe human environmental impacts. Developed areas would be restricted from future growth thus imposing economic hardship on the existing residents. Many flood plain residents would be required to relocate in areas not prone to flooding. Agricultural uses would be diverted to other lands which may be more susceptible to erosion. Thus, increased resources of capital, manpower, fuel and equipment may need to be committed to produce the equivalent amount of food and fiber. Remaining residents would be subject to continued frequent flooding."

We understand the basic theme of this statement; however, we do not agree with the way it has been presented. It reflects a short-term view and does not recognize long-term benefits of properly planned flood plain management objectives. The flood plain is a highly productive area for fish and wildlife and offers potentials for parks, recreation areas, and some agricultural use. Quite probably, nature will affect relocation of people and industry regardless of emergency protection measures, unless followed by more permanent solutions, including land use changes and flood plain management. Land use planning and flood plain management do not necessarily restrict an area from future growth. To the contrary, proper land use planning and flood plain management encourage growth compatible with the land capabilities.

In the last paragraph of this section, page 24, it is stated that the "Cost of providing land use changes and flood plain aspects would increase several times the amount used for the existing emergency watershed protection program. Adoption of land use changes and flood plain management would require adoption of a whole new set of social values as well as authorizations."

We know of no economic or other studies which fully support this statement. It appears to be contrary to logic and to the very principles most land use planners have advocated in recent years to promote improved land use planning and flood plain management practices. We therefore suggest that if it is necessary to discuss these kinds of alternatives to the Emergency Program, they be handled in a more positive manner and that it be clearly indicated they are not really true alternatives to the program given the normally traumatic circumstances that accompany a natural disaster.

It would seem that a mandatory part of the Emergency Program for the future should be an assessment of the total costs paid by the public. Each future event requiring "emergency relief" should be immediately followed by an analysis of land use conditions and the need for changes, which, based on the experience, would alleviate the need for continuing assistance.

The discussion on alternatives does not adequately emphasize environmental alternatives; instead, the discussion appears more like a justification statement for the program. Impacts of the alternatives of no program, complete watershed protection, increased funding of the existing program, streambank stabilization, and channel measures should be discussed in greater detail.

In summarizing the alternatives section, we feel that several entries may not really be alternatives but future programs for which we should strive. In our opinion, there are no alternatives to immediate well conceived actions to safeguard life and property under given circumstances. But certainly we don't have to live with these same circumstances indefinitely. We should therefore make the most of any and all opportunities to correct our past mistakes. We view the followup analysis and the implementation of sound flood plain management objectives after emergencies as one such opportunity.

Under the consultation section, page 25, we recommend consultation with appropriate tribal organizations and the Bureau of Indian Affairs when making an assessment of damages or determining the extent of emergency protection to be provided whenever Indian lands are involved.

In Appendix B, "Participation by Others," it would be desirable to point out if it is mandatory for other agencies to "participate in the emergency watershed protection program." Also, it is not clear when and how Federal, State, and local agency participation is coordinated under the Emergency Watershed Protection Program. We suggest inclusion of information on who undertakes the corrective work; e.g., local contractors, local agencies, individual farmers of ranchers, etc., and how contracts for field work are administered.

In the same appendix, the section on "Environment" requires that environmental aspects of emergency work be given careful consideration. It is indicated that the Administrator, Soil Conservation Service, will notify the Chairman, Council on Environmental Quality, when emergency work is to be undertaken. Neither this document nor the environmental statement mention any specific requirements or standards for environmental assessments in connection with individual emergency watershed programs. If such a document will be used, it should be discussed or a rationale should be given for its deletion.

Sincerely yours,

Stanley K. Hathaway

Deputy Assistant Secretary of the Interior

Mr. Kenneth E. Grant
Administrator
U.S. Department of Agriculture
Soil Conservation Service
Washington, D. C. 20250

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE

WO

REPLY TO: 8420 Environmental Statements

JUN 20 1974

SUBJECT: Draft Environmental Statement for the Emergency Watershed Protection Program

TO: Administrator, Soil Conservation Service

We have reviewed the draft environmental statement for the Soil Conservation Service Emergency Watershed Protection Program.

We have no specific comments on this program. The statement is composed of very general statements as to the kind of treatments and effects. We realize that general statements are necessary for a program that is National in scope of application. However, we wonder if a program such as this one designed to neutralize the effects of a natural disaster, which is the impact to be concerned with, really needs an environmental impact statement.

for R. MAX PETERSON
Deputy Chief

JUN 1974

STATE OF ALASKA

WILLIAM A. EGAN, GOVERNOR

OFFICE OF THE GOVERNOR

STATE PLANNING AND RESEARCH

Phone 465-3512

POUCH AD—JUNEAU 99801

June 17, 1974

Mr. Kenneth E. Grant
Administrator
Soil Conservation Service
U.S. Department of Agriculture
Washington, D.C. 20250

Subject: Emergency Watershed Protection Program
State I.D. No. 74042905

Dear Mr. Grant:

The Alaska State Clearinghouse has completed review on the subject project.

The following agencies were invited to review and comment:

State of Alaska

- Division of Budget & Management
- Legislature Finance Division
- Department of Comm. & Regional Affairs
- Department of Environmental Conservation
- Department of Public Works
- Department of Natural Resources
- Division of Parks - Anchorage
- Department of Fish & Game - Juneau
- Department of Highways

National Marine Fisheries Service
U.S. Forest Service
Corps of Engineers

Five of the above agencies responded.

The Department of Community & Regional Affairs stated:

> The Department of Community and Regional Affairs has reviewed this project. There is no indication that this project will have an adverse effect on this agency's present or future operation.

The Department of Environmental Conservation stated:

> The Department has no comments on this proposed program, which we feel can have only a beneficial impact on our program.

The Department of Natural Resources - Division of Lands stated:

> We have no comments regarding State I.D. No. 74042905.

The National Marine Fisheries Service stated:

> We have reviewed the Emergency Watershed Protection Program (State I.D. No. 74042905). At this time, we do not believe that the proposed improvements will have any significant adverse effects on the marine, estuarine or anadromous fishery resources in the vicinity of the proposed project.
>
> These comments are preliminary; further review may be requested of this office by other Federal or State agencies. If we can be of future assistance to your office during the development of this project, please contact us. Thank you for the opportunity to review this project at this time.

The Clearinghouse finds this project to be consistent with State long-range planning goals and objectives. Therefore, this letter will satisfy the review requirements of the Office of Management and Budget Circular A-95.

Sincerely,

Raymond W. Estess

Raymond W. Estess
State-Federal Coordinator

ARIZONA
OFFICE OF THE GOVERNOR

OFFICE OF
ECONOMIC PLANNING AND DEVELOPMENT
MAILING ADDRESS: 1645 West Jefferson • Room 428 • Phoenix, Arizona 85007

May 29, 1974

Mr. George C. Marks
State Conservationist
Soil Conservation Service
U. S. Department of Agriculture
6029 Federal Building
Phoenix, AZ 85025

Re: Project Title: Emergency Watershed Protection Program - USDA-SCS-ES-FP-(ADM)-74-1-D
State Application Identifier: 74-80-0018

Dear Mr. Marks:

The Arizona State Clearinghouse has received and reviewed your notification of proposed action concerning the above project. The Clearinghouse review has generated several responses, copies of which are attached for your information.

In accordance with current requirements as set forth in the Office of Management and Budget Circular A-95, Revised, this letter will serve as the State Clearinghouse comment on the proposal.

Please include the above State Application Identifier in any future correspondence regarding this proposal. Thank you for providing Arizona with the opportunity to comment upon this proposal.

Sincerely yours,

Dennis A. Davis, Executive
Secretary for Federal Programs
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ARIZONA

OFFICE OF THE GOVERNOR

OFFICE OF
ECONOMIC PLANNING AND DEVELOPMENT

MAILING ADDRESS: 1645 West Jefferson • Room 428 • Phoenix, Arizona 85007

Date: May 7, 1974

TO: Office of Economic Planning
and Development, 3rd Floor
1624 West Adams Street
Phoenix, Arizona 85007

FROM: Clearinghouse Staff Contact: Constance LaMonica

SUBJECT: Environmental Statement Review

Applicant: Soil Conservation Service

Project Title: Emergency Watershed Protection Program - USDA-SCS-ES-FP-(ADM)-74-1-D

State Application Identifier: 74-80-0018

A copy of a Draft Environmental Statement is attached for your review and comment in accordance with requirements of OMB Circular A-95. Please review the proposal as it affects the plans and programs of your agency and register your response below. Also note a staff contact within your agency in case further consultation is required. Please return this completed form within fifteen (15) days of your receipt of this request.

☒ No comment on the above project.

☐ Proposal is supported as written.

☐ Comments are attached.

We have received only a limited number of copies of this statement. We have Xeroxed several pages from the statement for your information and review. Should you desire a copy for review, contact the United States Department of Agriculture, Soil Conservation Service, 6029 Federal Building, Phoenix, Arizona 85025.

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Review Agency Staff Contact: _____

Bureau of Mines
Az Mining Ass'n
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SW Minerals Exploration

_____
Authorized Review Agency Signature

ARIZONA

OFFICE OF THE GOVERNOR

OFFICE OF

ECONOMIC PLANNING AND DEVELOPMENT

MAILING ADDRESS: 1645 West Jefferson • Room 428 • Phoenix, Arizona 85007

Date: May 7, 1974

TO: Mr. L. D. McCorkindale
Agriculture & Horticulture Dept.
414 Capitol Annex West
Phoenix, Arizona 85007

RECEIVED
MAY 9 - 1974
ARIZONA COMMISSION OF AGRICULTURE & HORTICULTURE

FROM: Clearinghouse Staff Contact: Constance LaMonica

SUBJECT: Environmental Statement Review

Applicant: Soil Conservation Service

Project Title: Emergency Watershed Protection Program - USDA-SCS-ES-FP-(ADM)-74-1-D

State Application Identifier: 74-80-0018

A copy of a Draft Environmental Statement is attached for your review and comment in accordance with requirements of OMB Circular A-95. Please review the proposal as it affects the plans and programs of your agency and register your response below. Also note a staff contact within your agency in case further consultation is required. Please return this completed form within fifteen (15) days of your receipt of this request.

☒ No comment on the above project.

☐ Proposal is supported as written.

☐ Comments are attached.

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Review Agency Staff Contact: L. D. McCorkindale

Bureau of Mines
Az Mining Ass'n
Arid Lands Studies
SW Minerals Exploration

Authorized Review Agency Signature

ARIZONA
OFFICE OF THE GOVERNOR

OFFICE OF
ECONOMIC PLANNING AND DEVELOPMENT

MAILING ADDRESS: 1645 West Jefferson • Room 428 • Phoenix, Arizona 8500

Date: May 7, 1974

TO: Mr. Ted H. Eyde, Secretary
Southwestern Minerals Exploration Ass'n
P.O. Box 49026
Tucson, AZ 85717

FROM: Clearinghouse Staff Contact: Constance LaMonica

SUBJECT: Environmental Statement Review

Applicant: Soil Conservation Service

Project Title: Emergency Watershed Protection Program - USDA-SCS-ES-FP-(ADM)-74-1-D

State Application Identifier: 74-80-0018

A copy of a Draft Environmental Statement is attached for your review and comment in accordance with requirements of OMB Circular A-95. Please review the proposal as it affects the plans and programs of your agency and register your response below. Also note a staff contact within your agency in case further consultation is required. Please return this completed form within fifteen (15) days of your receipt of this request.

- [X] No comment on the above project.
- [ ] Proposal is supported as written.
- [ ] Comments are attached.

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Review Agency Staff Contact: Ted H. Eyde
Bureau of Mines
Az Mining Ass'n
Arid Lands Studies
SW Minerals Exploration

Ted H. Eyde
Authorized Review Agency Signature

ARIZONA
OFFICE OF THE GOVERNOR

OFFICE OF
ECONOMIC PLANNING AND DEVELOPMENT

MAILING ADDRESS: 1645 West Jefferson • Room 428 • Phoenix, Arizona 85007

Date: May 7, 1974

TO: Mr. K. E. Foster, Ass't Dir.
College of Earth Sciences
Office of Arid Lands Studies
1201 East Speedway
Tucson, Arizona 85719

FROM: Clearinghouse Staff Contact: Constance LaMonica

SUBJECT: Environmental Statement Review

Applicant: Soil Conservation Service

Project Title: Emergency Watershed Protection Program - USDA-SCS-ES-FP-(ADM)-74-1-D

State Application Identifier: 74-80-0018

A copy of a Draft Environmental Statement is attached for your review and comment in accordance with requirements of OMB Circular A-95. Please review the proposal as it affects the plans and programs of your agency and register your response below. Also note a staff contact within your agency in case further consultation is required. Please return this completed form within fifteen (15) days of your receipt of this request.

- [x] No comment on the above project.
- [ ] Proposal is supported as written.
- [ ] Comments are attached.

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Review Agency Staff Contact:

Bureau of Mines
Az Mining Ass'n
Arid Lands Studies
SW Minerals Exploration

K. E. Foster

Authorized Review Agency Signature

ARIZONA

OFFICE OF THE GOVERNOR

OFFICE OF
ECONOMIC PLANNING AND DEVELOPMENT

MAILING ADDRESS: 1645 West Jefferson • Room 428 • Phoenix, Arizona 85007

Date: May 7, 1974

TO: Mr. Clinton M. Pattea
Executive Secretary
Indian Affairs Commission
1623 West Adams St.
Phoenix, Arizona 85007

FROM: Clearinghouse Staff Contact: Constance LaMonica

SUBJECT: Environmental Statement Review

Applicant: Soil Conservation Service

Project Title: Emergency Watershed Protection Program - USDA-SCS-ES-FP-(ADM)-74-1-D

State Application Identifier: 74-80-0018

A copy of a Draft Environmental Statement is attached for your review and comment in accordance with requirements of OMB Circular A-95. Please review the proposal as it affects the plans and programs of your agency and register your response below. Also note a staff contact within your agency in case further consultation is required. Please return this completed form within fifteen (15) days of your receipt of this request.

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- [ ] Proposal is supported as written.
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Review Agency Staff Contact: [signature]

Bureau of Mines
Az Mining Ass'n
Arid Lands Studies
SW Minerals Exploration

Authorized Review Agency Signature

ARIZONA
OFFICE OF THE GOVERNOR

OFFICE OF
ECONOMIC PLANNING AND DEVELOPMENT
MAILING ADDRESS: 1645 West Jefferson • Room 428 • Phoenix, Arizona 85007

Date: May 7, 1974

TO: Mr. Les Ormsby, Admin.
Arizona Power Authority
1810 West Adams Street
Phoenix, Arizona 85005

FROM: Clearinghouse Staff Contact: Constance LaMonica

SUBJECT: Environmental Statement Review

Applicant: Soil Conservation Service

Project Title: Emergency Watershed Protection Program - USDA-SCS-ES-FP-(ADM)-74-1-D

State Application Identifier: 74-80-0018

A copy of a Draft Environmental Statement is attached for your review and comment in accordance with requirements of OMB Circular A-95. Please review the proposal as it affects the plans and programs of your agency and register your response below. Also note a staff contact within your agency in case further consultation is required. Please return this completed form within fifteen (15) days of your receipt of this request.

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☐ Proposal is supported as written.

☐ Comments are attached.

We have received only a limited number of copies of this statement. We have Xeroxed several pages from the statement for your information and review. Should you desire a copy for review, contact the United States Department of Agriculture, Soil Conservation Service, 6029 Federal Building, Phoenix, Arizona 85025.

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Review Agency Staff Contact: _____

L Ormsby

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ARIZONA
OFFICE OF THE GOVERNOR

OFFICE OF
ECONOMIC PLANNING AND DEVELOPMENT

MAILING ADDRESS: 1645 West Jefferson • Room 428 • Phoenix, Arizona 85007

Date: May 7, 1974

TO: Mr. Roland H. Sharer
State Liaison Officer, AORCC
4433 N. 19th Ave., Suite 203
Phoenix, Arizona 85015

RECEIVED
MAY 10 1974
A.O.R.C.C.

FROM: Clearinghouse Staff Contact: Constance LaMonica

SUBJECT: Environmental Statement Review

Applicant: Soil Conservation Service

Project Title: Emergency Watershed Protection Program - USDA-SCS-ES-FP-(ADM)-74-1-D

State Application Identifier: 74-80-0018

A copy of a Draft Environmental Statement is attached for your review and comment in accordance with requirements of OMB Circular A-95. Please review the proposal as it affects the plans and programs of your agency and register your response below. Also note a staff contact within your agency in case further consultation is required. Please return this completed form within fifteen (15) days of your receipt of this request.

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☐ Comments are attached.

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Review Agency Staff Contact:

Roland A. Sharer
Authorized Review Agency Signature

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ECONOMIC PLANNING AND DEVELOPMENT

MAILING ADDRESS: 1645 West Jefferson • Room 428 • Phoenix, Arizona 85007

Date: May 7, 1974

TO: Mr. Wm. N. Price, State Hwy. Eng
Environmental Planning Division
Department of Highways
206 South 17th Avenue
Phoenix, Arizona 85007

RECEIVED
MAY - 9 1974
ARIZONA HIGHWAY DEPARTMENT
ENVIRONMENTAL PLANNING DIVISION

FROM: Clearinghouse Staff Contact: Constance LaMonica

SUBJECT: Environmental Statement Review

Applicant: Soil Conservation Service

Project Title: Emergency Watershed Protection Program - USDA-SCS-ES-FP-(ADM)-74-1-D

State Application Identifier: 74-80-0018

A copy of a Draft Environmental Statement is attached for your review and comment in accordance with requirements of OMB Circular A-95. Please review the proposal as it affects the plans and programs of your agency and register your response below. Also note a staff contact within your agency in case further consultation is required. Please return this completed form within fifteen (15) days of your receipt of this request.

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☐ Proposal is supported as written.

☐ Comments are attached.

Received too late to make comment within statutory time limit.

We have received only a limited number of copies of this statement. We have Xeroxed several pages from the statement for your information and review. Should you desire a copy for review, contact the United States Department of Agriculture, Soil Conservation Service, 6029 Federal Building, Phoenix, Arizona 85025.

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Review Agency Staff Contact: Marion C. Dole

Division Manager

Authorized Review Agency Signature

Bureau of Mines
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Arid Lands Studies
SW Minerals Exploration

1645 West Jefferson, Room 428; Administration (602) 271-5371 • Development (602) 271-5374 • Motion Picture (602) 271-5011 • Tourism (602) 271-5
1624 West Adams, 3rd Floor; Planning & Clearinghouse (602) 271-5005 • Intergovernmental (602) 271-5939 • Research (602) 271-5001 • Word Center (602) 271-3

ARIZONA
OFFICE OF THE GOVERNOR

OFFICE OF
ECONOMIC PLANNING AND DEVELOPMENT

MAILING ADDRESS: 1645 West Jefferson • Room 428 • Phoenix, Arizona 85007

Date: May 7, 1974

TO: Mr. William H. Dresher
Dean, College of Mines
Dir., Az. Bureau of Mines
The University of Arizona
Tucson, Arizona 85721



FROM: Clearinghouse Staff Contact: Constance LaMonica

SUBJECT: Environmental Statement Review

Applicant: Soil Conservation Service

Project Title: Emergency Watershed Protection Program - USDA-SCS-ES-FP-(ADM)-74-1-D

State Application Identifier: 74-80-0018

A copy of a Draft Environmental Statement is attached for your review and comment in accordance with requirements of OMB Circular A-95. Please review the proposal as it affects the plans and programs of your agency and register your response below. Also note a staff contact within your agency in case further consultation is required. Please return this completed form within fifteen (15) days of your receipt of this request.

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- [ ] Comments are attached.

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Review Agency Staff Contact:
Bureau of Mines
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5-11-74

Authorized Review Agency Signature

ARIZONA
OFFICE OF THE GOVERNOR

OFFICE OF
ECONOMIC PLANNING AND DEVELOPMENT
MAILING ADDRESS: 1645 West Jefferson • Room 428 • Phoenix, Arizona 85007

Date: May 7, 1974

TO: Dr. James Schoenwetter
Department of Anthropology
Arizona State University
Tempe, AZ 85281

FROM: Clearinghouse Staff Contact: Constance LaMonica

SUBJECT: Environmental Statement Review

Applicant: Soil Conservation Service

Project Title: Emergency Watershed Protection Program - USDA-SCS-ES-FP-(ADM)-74-1-D

State Application Identifier: 74-80-0018

A copy of a Draft Environmental Statement is attached for your review and comment in accordance with requirements of OMB Circular A-95. Please review the proposal as it affects the plans and programs of your agency and register your response below. Also note a staff contact within your agency in case further consultation is required. Please return this completed form within fifteen (15) days of your receipt of this request.

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- [ ] Comments are attached.

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Review Agency Staff Contact: James Schoenwetter

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ARIZONA

OFFICE OF THE GOVERNOR

OFFICE OF

ECONOMIC PLANNING AND DEVELOPMENT

MAILING ADDRESS: 1645 West Jefferson • Room 428 • Phoenix, Arizona 85007

Date: May 7, 1974

TO: Mr. John P. Dickinson
Dept. of Economic Security
Post Office Box 6123
Phoenix, Arizona 85005

FROM: Clearinghouse Staff Contact: Constance LaMonica

SUBJECT: Environmental Statement Review

Applicant: Soil Conservation Service

Project Title: Emergency Watershed Protection Program - USDA-SCS-ES-FP-(ADM)-74-1-D

State Application Identifier: 74-80-0018

A copy of a Draft Environmental Statement is attached for your review and comment in accordance with requirements of OMB Circular A-95. Please review the proposal as it affects the plans and programs of your agency and register your response below. Also note a staff contact within your agency in case further consultation is required. Please return this completed form within fifteen (15) days of your receipt of this request.

- [x] No comment on the above project.
- [ ] Proposal is supported as written.
- [ ] Comments are attached.

We have received only a limited number of copies of this statement. We have Xeroxed several pages from the statement for your information and review. Should you desire a copy for review, contact the United States Department of Agriculture, Soil Conservation Service, 6029 Federal Building, Phoenix, Arizona 85025.

Review Agency Staff Contact: [signature]

[signature]
Authorized Review Agency Signature

Economic sec
Civil Rights
Game & Fish
Indian Affairs
Ag & Hort
Anthropology
Highway
Health
Power
Water
Parks
Land
AORCC
OEPAD
Bureau of Mines
Az Mining Ass'n
Arid Lands Studies
SW Minerals Exploration

ARIZONA
OFFICE OF THE GOVERNOR

OFFICE OF
ECONOMIC PLANNING AND DEVELOPMENT

MAILING ADDRESS: 1645 West Jefferson • Room 428 • Phoenix, Arizona 85007

Date: May 7, 1974

TO: Mr. Ford Smith, Exec. Dir.
Civil Rights Div, Dept of Law
1645 W. Jefferson, Room 140
Phoenix, Arizona 85007

FROM: Clearinghouse Staff Contact: Constance LaMonica

SUBJECT: Environmental Statement Review

Applicant: Soil Conservation Service

Project Title: Emergency Watershed Protection Program - USDA-SCS-ES-FP-(ADM)-74-1-D

State Application Identifier: 74-80-0018

A copy of a Draft Environmental Statement is attached for your review and comment in accordance with requirements of OMB Circular A-95. Please review the proposal as it affects the plans and programs of your agency and register your response below. Also note a staff contact within your agency in case further consultation is required. Please return this completed form within fifteen (15) days of your receipt of this request.

☐ No comment on the above project.

☒ Proposal is supported as written.

☐ Comments are attached.

We have received only a limited number of copies of this statement. We have Xeroxed several pages from the statement for your information and review. Should you desire a copy for review, contact the United States Department of Agriculture, Soil Conservation Service, 6029 Federal Building, Phoenix, Arizona 85025.

Economic sec
Civil Rights
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OEPAD
Bureau of Mines
Az Mining Ass'n
Arid Lands Studies
SW Minerals Exploration

Review Agency Staff Contact: J. Ford Smith

J. Ford Smith
Authorized Review Agency Signature

Executive Director

ARIZONA

OFFICE OF THE GOVERNOR

OFFICE OF
ECONOMIC PLANNING AND DEVELOPMENT

MAILING ADDRESS: 1645 West Jefferson • Room 428 • Phoenix, Arizona 85007

Date: May 7, 1974

Complete cc to RLD, WKC & H.J. Comments to SEC by 5-20

TO: Mr. Andrew L. Bettwy
Comm., Department of [illegible]
1624 W. Adams St., 4th Floo.
Phoenix, Arizona 85[illegible]

FROM: Clearinghouse Staff Contact: Constance LaMonica

SUBJECT: Environmental Statement Review

Applicant: Soil Conservation Service

Project Title: Emergency Watershed Protection Program - USDA-SCS-ES-FP-(ADM)-74-1-D

State Application Identifier: 74-80-0018

A copy of a Draft Environmental Statement is attached for your review and comment in accordance with requirements of OMB Circular A-95. Please review the proposal as it affects the plans and programs of your agency and register your response below. Also note a staff contact within your agency in case further consultation is required. Please return this completed form within fifteen (15) days of your receipt of this request.

- [X] No comment on the above project.
- [ ] Proposal is supported as written.
- [ ] Comments are attached.

We have received only a limited number of copies of this statement. We have Xeroxed several pages from the statement for your information and review. Should you desire a copy for review, contact the United States Department of Agriculture, Soil Conservation Service, 6029 Federal Building, Phoenix, Arizona 85025.

Review Agency Staff Contact: Kelly R. [illegible]

Authorized Review Agency Signature

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OEP-AD

Bureau of Mines
Az Mining Ass'n
Arid Lands Studies
SW Minerals Exploration

Governor
JACK WILLIAMS

Commissioners:
MILTON G. EVANS, Chairman, Flagstaff
ROBERT J. SPILLMAN, Phoenix
WILLIAM H. BEERS, Prescott
CHARLES F. ROBERTS, O.D., Bisbee
FRANK FERGUSON, JR., Yuma

Director
ROBERT A. JANTZEN

Asst. Director, Operations
PHIL M. COSPER

Asst. Director, Services
ROGER J. GRUENEWALD

ARIZONA GAME & FISH DEPARTMENT
2222 West Greenway Road Phoenix, Arizona 85023 942-3000

May 22, 1974

Mrs. Constance LaMonica
State Clearing House
Office of Economic Planning and Development
1645 West Jefferson, Room 428
Phoenix, Arizona 85007

Re: Environmental Statement Review
Soil Conservation Service
State Application Identifier: 74-80-0018

Dear Mrs. LaMonica:

The Arizona Game and Fish Department has reviewed the Draft Environmental Impact Statement presented by the Soil Conservation Service and we offer the following comments.

This Department endorses the concept of providing protective measures to safeguard lives and property when "the natural elements cause a sudden impairment to a watershed".

The Environmental Impact Statement presented by the Soil Conservation Service covers a variety of subjects not related to a "sudden natural change". For example, log roads discussed on pages 4 and 5 are constructed over a period of time. It is well known what happens if these roads are not properly constructed. If these roads were designed and maintained correctly they would not present a problem. There is some doubt if they even fit into the definition of the Act as a natural and sudden element causing the impairment of a watershed.

Streambank channelization, for the reasons discussed on pages 8 and 9 and elsewhere in the report, are not always constructed for

purposes of the Act. Most streambank channelization projects are very destructive to wildlife and fisheries habitat and to the water quality. The removal of vegetation along streambanks is in complete disagreement with the statement on page 8, "Vegetative plantings along streambanks are the single most important measure to stabilize streambank erosion."

The false security obtained from stream channelization should be emphasized. It is mentioned on page 17; however, it is not mentioned in section 2h, Adverse Environmental Effects.

Also, under section 2h, it states that "Streambank wildlife habitat may be degraded ...." I think it is obvious that it will be degraded. This should apply to the statement on fish habitat and water quality. There is no question that these construction projects will result in a degraded condition.

Alternative 5c, flood plain management, offers the most reasonable method for preserving wildlife and fish habitat and for preserving the water quality and the reduction of erosion. Consideration for flood plaining zoning and flood plaining management should be seriously considered in many areas.

This Environmental Impact Statement is very broad and covers a variety of control features over the entire country. When an emergency arises, it is necessary to do something quickly. However, many of the projects mentioned do not seem to be of an emergency nature and this Environmental Impact Statement should not be considered as a blanket report to cover these projects.

We appreciate the opportunity to comment on this report and would welcome the chance to participate in future Soil Conservation Service programs.

Sincerely,

Robert A. Jantzen, Director

By: John N. Carr, Supervisor
Planning and Evaluation Branch

JNC/cb

STATE OF ARKANSAS
DEPARTMENT OF PLANNING
400 TRAIN STATION SQUARE • VICTORY AT MARKHAM
LITTLE ROCK 72201

DALE BUMPERS
GOVERNOR

CHARLES T. CROW
DIRECTOR

June 14, 1974

Mr. Kenneth E. Grant, Administrator
Soil Conservation Service
South Agriculture Building
12th and Independence Avenue, SW
Washington, D.C. 20250

Re: Emergency Watershed Protection Program Authorized by Section 216 of the Flood Control Act of 1950, PL 81-516

Dear Mr. Grant:

The State Planning and Development Clearinghouse is in receipt of the attached review and comment correspondence referencing the above Emergency Watershed Protection Program.

If further comments are received, they will be transmitted to your offices for inclusion in submittals to the Council. Do not hesitate to let us know if we can be of further assistance.

Sincerely,

Armand De Laurell
Director
State Clearinghouse

ADL/jv

Enclosures

ARKANSAS GAME AND FISH COMMISSION
June 5, 1974

MEMORANDUM TO: John P. Saxton, Chairman,
Technical Review Committee

FROM: Richard W. Broach, Member,
Technical Review Committee

RE: Emergency Watershed Protection Program - authorized by Section 216 of the Flood Control Act of 1950, PL 81-516

Initially we note that the Draft apparently fails to give adequate consideration to flood plain management as a viable alternative, when, in our opinion, such planning efforts should be a primary approach to flooding problems.

Section I(f) of the draft, "Implementation of the Emergency Watershed Program," lists several large scale emergencies resulting from flooding:

Hurricane Camille, Virginia

Hurricane Agnes and Rapid City,
South Dakota Flood

Flooding in the Mississippi River Valley

These are also examples of natural phenomena which will occur again and will take lives and destroy property.

The measures taken as outlined in the draft will simply encourage the continued unwise and incompatible uses of flood plains.

The logical, simple and least expensive approach is to designate flood plains for activities which are compatible with periodic flooding. Such uses are timber production, recreation and fish and wildlife management.

RWB:ac
cc: State Planning & Development Clearinghouse
B.S.F.W., Vicksburg

ARKANSAS STATE BOARD OF HEALTH

LITTLE ROCK

May 27, 1974

Mr. John Saxton, Director
Division of Soil & Water Resources
1920 West Capitol Avenue
Little Rock, Arkansas

Dear Mr. Saxton:

Reference is made to the Emergency Watershed Protection Program Authorized by Section 216 of the Flood Control Act of 1950, Public Law 81-516 (33 USC 701b-1), LMKOD-NP 1522-15, Mississippi River 29.

This office has reviewed the project and finds no public health significance.

Yours truly,

BUREAU OF CONSUMER PROTECTION SERVICES

G. T. Kellogg, P.E.
Director and Chief Engineer

GTK/fd

cc: Mr. Armand DeLaurell, Director
A State Planning & Development Clearinghouse

NORMAN B. LIVERMORE, JR.
SECRETARY

RONALD REAGAN
GOVERNOR OF
CALIFORNIA

OFFICE OF THE SECRETARY
RESOURCES BUILDING
1416 NINTH STREET
95814

Department of Conservation
Department of Fish and Game
Department of Navigation and
Ocean Development
Department of Parks and Recreation
Department of Water Resources

Air Resources Board
Colorado River Board
San Francisco Bay Conservation and
Development Commission
State Lands Commission
State Reclamation Board
State Water Resources Control Board
Regional Water Quality Control Boards

THE RESOURCES AGENCY OF CALIFORNIA
SACRAMENTO, CALIFORNIA

JUN 20 1974

Mr. G. H. Stone
U. S. Department of Agriculture
Soil Conservation Service
P. O. Box 1019
Davis, CA 95616

Dear Mr. Stone:

Your Notice of Intent dated May 6, 1974, for Draft Environmental Impact Statement for Emergency Watershed Protection Program, submitted to the Office of Intergovernmental Management (State Clearinghouse) in the Governor's Office, has been reviewed by the state agencies concerned. This review fulfills the requirements under Part II of the U. S. Office of Management and Budget Circular A-95.

The statement has been reviewed by the Departments of Commerce, Conservation, Fish and Game, Food and Agriculture, Parks and Recreation, and Water Resources; the Reclamation Board; and the State Water Resources Control Board.

Should the project expand to involve land use and/or development, special attention should be given to cultural (historical and archeological) resources, if the threat or loss to those resources is to be avoided. I am attaching a list of organizations qualified to perform archeological investigations to fulfill the requirements of the State Environmental Quality Act, most are also qualified to perform at least a provisional review of historical values.

Thank you for the opportunity to review and comment.

Sincerely yours,

N. B. LIVERMORE, JR.

By Paul L Clifton

Attach.

cc: Mr. Mark Briggs
Director of Management Systems
State Clearinghouse
1400 Tenth Street
Sacramento, CA 95814
(SCH 74050687)

APPENDIX

SOCIETY FOR CALIFORNIA ARCHAEOLOGY - DISTRICT CLEARINGHOUSES

The institutions listed below maintain files of information on archaeological resources in their respective Districts (See map) and have knowledge of competent archaeological consultants in each District.

District	Institution
01 - Northwest	Dept. of Anthropology, California State College, Sonoma, Rohnert Park, CA 94927. Primary Phone (707) 795-2312; Secondary Phone 795-2381.
02 - Northeast	Dept. of Anthropology, California State University, Chico, Chico, CA 95926. Phone (916)345-6192.
03 - North-Central	Dept. of Anthropology, University of California, Davis, Davis, CA 95616. Primary Phone (916) 752-1011; Secondary Phone 752-1594.
04 - Bay Area	Dept. of Anthropology, San Francisco State University, San Francisco CA 94132. Primary Phone (415)469-2270; Secondary Phones 469-2046 and 469-1642.
05 - South-Central Coast	College V, University of California, Santa Cruz, Santa Cruz, CA 95064. Primary Phone at Cabrillo College, District Coordinator: (408)475-6000; Secondary Phone 429-2951.
06 - Southern San Joaquin	Dept. of Anthropology, California State University, Fresno, Fresno, CA 93710. Phone (209)487-1002.
07 - Los Angeles Region	Archaeological Survey, University of California, Los Angeles, Los Angeles, CA 90024. Phone (213)825-7411.
08 - Desert and 09 - Eastern California	Archaeological Research Unit, University of California, Riverside, Riverside, CA 92502. Phone (714) 787-3885.
10 - South-Central	Dept. of Anthropology, California State College, Stanislaus, Turlock CA 95380. Phone (209)634-9101 ext.227.

11 - South Coast	Dept. of Anthropology, San Diego State University, San Diego, CA 92115. Phone (714) 286-6300.
12 - Channel	Dept. of Anthropology, Santa Barbara Museum of Natural History, 2559 Puesta del Sol Road, Santa Barbara, CA 93105. Phone (805)936-7821.

Note: Archaeologists in the above institutions provide advice and information to concerned parties above and beyond their regular institutional responsibilities. They receive no remuneration from the Society. When contacting a Clearinghouse for information or recommendations, please provide as much time and assistance as possible to the archaeologist responding to your request.

CLEARINGHOUSE DISTRICT BOUNDARIES



Colorado
Division of Planning

John D. Vanderhoof / Governor

1575 Sherman Street / Denver, Colorado / 80203

Philip H. Schmuck / Director

Department of Local Affairs

Phone / (303) 892-2178

July 8, 1974

Mr. Kenneth E. Grant, Administrator
Soil Conservation Service
United States Department of Agriculture
Washington, D. C. 20250

SUBJECT: Draft Environmental Impact Statement for
Emergency Watershed Protection Program

Dear Mr. Grant:

The Colorado State Clearinghouse has reviewed the above-referenced draft environmental impact statement (DES). The DES adequately assesses the potential environmental impact of the program, and I am encouraged to find that separate environmental impact statements will be prepared for each project done under the program (page 6, Appendix B). More definite coordination than that mentioned on page 5, Appendix B, should be established between the Soil Conservation Service program and the Emergency Conservation Measures Program of the Agricultural Stabilization and Conservation Service, however, as duplication and overlap of services seems to be a real possibility. I would also recommend a formal working relationship be established with the Colorado Division of Wildlife.

Thank you for providing us the opportunity to comment on this DES. I apologize for the lateness of these comments, but I hope they will be useful to you.

Sincerely,

Philip H. Schmuck
Director

PHS/JO/vt

cc: John Bermingham, Assistant to the Governor on Environmental Affairs and State Planning
J. D. Arehart, Executive Director, Department of Local Affairs
Jack Grieb, Director, Division of Wildlife
M. D. Burdick, State Conservationist, USDA, Soil Conservation Service

STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION
STATE OFFICE BUILDING HARTFORD, CONNECTICUT 06115

June 5, 1974

Mr. Kenneth E. Grant
Administrator
Soil Conservation Service
Washington, D.C. 20250

Dear Mr. Grant:

Having received and reviewed the Draft Environmental Impact Statement entitled Emergency Watershed Protection Program, the Department of Environmental Protection submits the following commentary:

In general, this document provides an inadequate discussion of anticipated environmental impacts. Although the unpredictability of the natural emergencies which require the implementation of such a program makes quantitative estimates of many aspects impossible, the impact statement fails to detail even qualitative effects. Vague descriptions of possible environmental damage are accompanied by the unspecific assurance that "precautions are used to minimize adverse impacts." Neither the actual emergency procedures nor the precautions are explained. In addition, the discussion of alternatives contains a listing only of radically different types of possible responses to natural emergencies threatening watersheds but does not contain a discussion of minor adjustments to the proposed program or why such alternatives should be rejected. This creates an all-or-nothing prospectus that is unrealistic and useless in any evaluation of this program. There is no indication of how the proposal was developed or what kinds of options might be available. The following comments on specific passages in the Draft Environmental Impact Statement serve to illustrate this point.

1. Revegetation

"Planting grass, shrubs and trees...", (Page 4) "Vegetative plantings along streambanks are the single most important measure to stabilize streambank erosion", (Page 8).

References to revegetation of exposed areas appear repeatedly without any notation of what plant species will be used. There is no mention of whether or not attempts are made to match local flora, or match seeding practices to local conditions, wildlife needs, etc.

JUN 12 1974

This paper was produced from recycled paper - both broke and reused.

2. Mechanical Measures

"Other structural measures such as rock riprap, gabions or mechanical streambank protection devices may be needed to supplement the vegetative plantings." (Page 8).

No explanation is contained in the draft of how or when the decision is made to provide mechanical measures instead of, or in conjunction with, vegetative plantings. Notations in the text refer to a bibliography of technical documents but no indication is given of how these relate to actual proposed practices.

3. Structures

"In order to obtain federal assistance for funding emergency measures, sponsoring organizations obtain land and water rights, construction permits and accept responsibility for maintenance if needed of the completed emergency measure." (Appendix B).

In several places, a reference is made to the installation of culverts and other channelization structures, but whether these are to be permanent and how responsibility for maintaining such structures is assigned is given only this vague description.

4. Interdisciplinary Approach

"Coordination is related to providing a harmonious manner with the environment...Environmental considerations are integrated into emergency work using an interdisciplinary planning approach." (Page 11).

This approach is not described. The extent or types of involvement of other agencies is likewise not fully explained.

5. Pesticides

Of specific concern to this department is the use of pesticides to control rodents and mosquitoes, especially under flood or potential flood conditions when chemicals may be dispersed rapidly and uncontrollably. In one section, a reference was made to "rodent control" on 4,656 acres during the last few years. (page 12). While it is assumed that pesticide use will conform with state and local regulations, it is felt that this description does not adequately fulfill the purpose of an environmental impact statement.

6. Fertilization

Fertilization and mulching conducted in conjunction with revegetation is mentioned without any discussion of the types of fertilizers or mulch to be used and under what circumstances (except that "in some cases a diversion may be used to keep excessive runoff off the seeded area until germination has occured." (Page 4).

7. Other

"These measures include work such as: establishing vegetative cover such as grass, shrubs, or trees on denuded land; stabilizing eroded banks using structural and/or vegetative means; removing debris; opening watercourses where flow is dangerously restricted; constructing protective diversions, dikes, or jetties; stabilizing banks with rip-rap, cribbing, or piling; using land stabilization measures such as terraces; repairing dikes, dams, or other water control structures; and constructing emergency road stabilization measures such as water bars. Permanent or long-life measures such as floodwater-retarding structures, channel construction, log booms, debris basins, and grade stabilization structures may be installed as emergency measures if they are the most feasible way to obtain emergency protection." (Page 2 of Appendix B).

Again no indication is given of what types of circumstances warrant what types of measures and who makes these decisions.

8. Wildlife

"Wildlife habitat can be effectively improved by the use of conservation practices in providing land stabilization. Wetland areas and other natural wildlife lands can be managed to increase the habitat stability." (Page 15).

No more detailed mention of wildlife considerations is provided anywhere in the draft. This omission is important as wildlife is particularly vulnerable in the types of situations requiring emergency watershed protection both to further natural impairment of the damaged habitats and to man-made interference with natural restoration processes.

9. Land Use

"Flood plain land use change could be induced as people may have a false security about being protected from future flooding (1). This impact is expected to be minimal as emergency watershed protection measures are installed to remove clogged or restricted short reaches rather than installing entire lengths of channel modification." (Page 17).

Some statistics demonstrating such effects would make evaluation of this problem possible.

10. Fish and Water Life

"Occasionally construction areas for emergency measures may be cleared. Such areas would be exposed to accelerated erosion and increased sediment in downstream reaches. Increased sediment may impact downstream fish habitat (1, 6, 11, 20, 21 and 32). This impact is minimized as it occurs in the already downgraded post-disaster environmental condition.

Wildlife habitat value may be reduced in areas being repaired.

Wildlife use of construction areas would be temporarily delayed until vegetation can once again be reestablished." (Page 17).

Lack of substantiating data prevents an adequate evaluation of this impact and what measures could be taken to minimize it.

11. Alternatives

In the discussion of land use and flood plain management as a means of preventing property loss the draft states that: "Land use changes and flood plain management would have severe human environmental impacts. Developed areas would be restricted from future growth thus imposing economic hardship on the existing residents." (Page 22).

This represents circular logic since often the development of naturally floodprone areas has created the need for expensive protection measures in the first place. To increase these costs through further development in order to prevent the "economic hardship" of a no-growth policy on existing residents is not automatically the most socially or environmentally desirable action. While land use or flood plain management practices cannot reasonably be expected to eliminate the need for emergency action following forest fire, hurricane, or other natural flood plain damage, neither should they be totally rejected in order to protect the economic interests of local residents alone.

Due to these various inadequacies it is the conclusion of the Department of Environmental Protection that major revisions, including the addition of critical substantiating data, are necessary before a final Environmental Statement can be formulated.

If you have any questions regarding any aspect of this review, please feel free to contact me.

Sincerely,

Janice B. Goldfrank
Environmental Analyst

JBG:mpc

STATE OF FLORIDA

Department of Administration

Division of State Planning

660 Apalachee Parkway - IBM Building

TALLAHASSEE
32304
(904) 488-2371

Reubin O'D. Askew
GOVERNOR

Earl M. Starnes
STATE PLANNING DIRECTOR

L. K. Ireland, Jr.
SECRETARY OF ADMINISTRATION

June 21, 1974

Mr. Kenneth E. Grant
Administrator
Soil Conservation Service
Washington, D.C. 20250

Dear Mr. Grant:

Functioning as the state planning and development clearinghouse contemplated in U. S. Office of Management and Budget Circular A-95, we have reviewed the following draft environmental impact statement:

Emergency Watershed Protection Program Authorized by Section 216 of the Flood Control Act of 1950, Public Law 81-516 (33USC 701b-1). SAI Number 74-1113E.

During our review we referred the environmental impact statement to the following agencies, which we identified as interested: Board of Trustees of the Internal Improvement Trust Fund; Game and Fresh Water Fish Commission; Department of Health and Rehabilitative Services; Department of Natural Resources; Department of State - Division of Archives, History and Records Management; Department of Transportation; and the Environmental Information Center. Agencies were requested to review the statement and comment on possible effects that actions contemplated could have on matters of their concern. Letters of comment on the statement are enclosed from the Department of Natural Resources; Department of State - Division of Archives, History and Records Management; and Department of Transportation. No further responses were received.

In accordance with the Council on Environmental Quality guidelines concerning statements on proposed federal actions affecting the environment, as required by the National Environmental Policy Act of 1969, and U. S. Office of Management and Budget Circular A-95, this letter, with attachments, should be appended to the final environmental impact statement on this project. Comments regarding this statement and project contained herein or attached hereto should be addressed in the statement.

We request that you forward us copies of the final environmental impact statement prepared on this project.

Sincerely,

E. E. Maroney, Chief
Bureau of Intergovernmental Relations

EEM/Wdp
Enclosures
cc: Mr. O. J. Keller
Mr. Joel Kuperberg
Mr. W. N. Lofroos
Mr. William Partington
Mr. Harmon Shields
Mr. H. E. Wallace
Mr. Robert Williams

STATE OF FLORIDA

Department of Administration

Division of State Planning

660 Apalachee Parkway IBM Building

TALLAHASSEE

32304

(904) 488-2371

Reubin O'D. Askew
GOVERNOR

L. K. Ireland, Jr.
SECRETARY OF ADMINISTRATION

Earl M. Starnes
STATE PLANNING DIRECTOR

TO: Mr. Harmon Shields, Ex. Dir.
Department of Natural Resources
Larson Building
Tallahassee, Florida 32304
Attn: Mr. Jim Smith

DATE: MAY 15 1974

DUE DATE: JUN 4 1974

FROM: Bureau of Intergovernmental Relations

SUBJECT: SAI: 74-1113 E

Please review and comment to us on the above draft environmental impact statement, copy attached. In reviewing the statement, you should consider possible effects that actions contemplated could have on matters of concern to your agency.

If you feel that a conference is needed for discussion of the project or resolution of conflicts, or if you have questions concerning the statement, please call Mr. Estus Whitfield at (904) 488-2401. Please check the appropriate box below, attach any comments on your agency's stationery and return to IGR or telephone "no adverse comments" by the above due date.

On that date, we intend to consider all review comments received and develop a state position on the project. In both telephone and written correspondence please refer to the above SAI number.

Sincerely,

Ed Maroney

Chief
Bureau of Intergovernmental Relations

Enclosure cc: Mr. William Beckham

****

TO: Bureau of Intergovernmental Relations

FROM: Department of Natural Resources

SUBJECT: DEIS Review and Comments

DIVISION OF STATE PLANNING
Bureau of Intergovernmental Relations
JUN 14 1974
RECEIVED
SAI NO. _____

[X] No Comments

[ ] Comments Attached

Reviewing Agency:

Signature: James B. Smith

Date: 6/12/74

TITLE: Administrative Assistant

STATE OF FLORIDA

Department of State

THE CAPITOL
TALLAHASSEE 32304

RICHARD (DICK) STONE
SECRETARY OF STATE

ROBERT WILLIAMS, DIRECTOR
DIVISION OF ARCHIVES, HISTORY, AND
RECORDS MANAGEMENT

DIVISION OF ARCHIVES, HISTORY AND RECORDS MANAGEMENT
Intergovernmental Relations
MAY 31 1974
RECEIVED
SAI NO. _____

May 29, 1974

Mr. E. E. Maroney, Chief
Bureau of Intergovernmental Relations
660 Apalachee Parkway
Tallahassee, Florida 32304

Re: SAI 74-1113E Emergency Watershed Protection Program

Dear Mr. Maroney:

We have reviewed the above project with respect to possible impact upon cultural resources and have the following comments. We realize that emergency situations often dictate the most expedient and efficient techniques of land alteration, however, we would ask that wherever possible, attention be paid to the preservation of archaeological and historic sites. Care is urged during all phases of soil service operations to avoid the disturbance of these non-renewable resources.

The opportunity to comment is appreciated.

Sincerely,

L. Ross Morrell
State Archaeologist & Chief,
Bureau of Historic Sites & Properties

LRM/Msrh

Florida Department of Transportation

REUBIN O'D. ASKEW
GOVERNOR

Haydon Burns Building, 605 Suwannee Street, Tallahassee, Florida 32304, Telephone (904) 488-8772

WALTER L. REVELL
SECRETARY

June 5, 1974

Mr. E. E. Maroney
Chief, Bureau of Intergovern-
mental Relations
Division of State Planning
660 Apalachee Parkway
Tallahassee, Florida 32304

Dear Mr. Maroney:

Subject: Draft Environmental Impact Statement
Emergency Watershed Protection Program
United States Department of Agriculture
State Application Identifier 74-1113-E

We have reviewed the transportation aspects of the subject statement and have no adverse comments.

We appreciate the opportunity to comment at this early date.

Very truly yours,

RAY G. L'AMOREAUX, DIRECTOR
DIVISION OF PLANNING & PROGRAMMING

W. N. Lofroos, P.E.
Chief, Bureau of Planning

WNL:RFK/rh

DIVISION OF STATE PLANNING,
Intergovernmental Programs
JUN 7 1974
SAI NO. _____

STATE OF FLORIDA

Department of Administration

Division of State Planning

660 Apalachee Parkway - IBM Building

TALLAHASSEE

32304

(904) 488-2401

Earl M. Starnes
STATE PLANNING DIRECTOR

Reubin O'D. Askew
GOVERNOR

L. K. Ireland, Jr.
SECRETARY OF ADMINISTRATION

Deputy Administrator for Water Resources

June 26, 1974

Mr. Kenneth E. Grant
Administrator
Soil Conservation Service
Washington, D.C. 20250

RE: Emergency Watershed Protection Program Authorized by Section 216 of the Flood Control Act of 1950, Public Law 81-516 (33 USC 701b-1). SAI No. 74-1113E.

Dear Mr. Grant:

The enclosed letter from the Department of Health and Rehabilitative Services is forwarded for enclosure to my letter of June 21, 1974, concerning the above project.

Sincerely,

Ed Maroney

E. E. Maroney, Chief
Bureau of Intergovernmental Relations

EEM/dtp
Enclosure
cc: Mr. O. J. Keller

RECEIVED MAIL ROOM
1974 JUL -2 PM 3:0
SOIL CONSERVATION SERVICE
WASHINGTON, D.C.

STATE OF FLORIDA

DEPARTMENT OF HEALTH AND REHABILITATIVE SERVICES

Prior Notification and Review System

O. J. KELLER

[redacted]
Secretary

Date: June 20, 1974

MEMORANDUM

REF. NO: DHRS _____ SPDC (SAI) 74-1113E

TITLE Emergency Watershed Protection Program

APPLICANT U. S. Department of Agriculture

TO: Kenneth Ireland, Secretary
Department of Administration
E. E. Maroney
Attn: [redacted], Chief
Bureau of Intergovernmental Relations
O. J. KELLER

FROM: [redacted] Secretary
Department of Health and Rehabilitative Services

By: Division of Planning and Evaluation

DIVISION OF STATE PLANNING,
Bureau Of
Intergovernmental Relations
JUN 21 1974
RECEIVED
SAI NO. _____

SUBJ: NOTIFICATION OF INTENT TO APPLY FOR FEDERAL FUNDS

The project identified above has been reviewed in accordance with O.M.B. Circular A-95. Action recommended:

[X] The project is consistent with the goals and objectives of the Department of Health and Rehabilitative Services. Favorable action is recommended.

[ ] Substantive comments have been received and are summarized in the attached.

[ ] Conference with applicant is requested.

[ ] The project is not consistent with the goals and objectives of the Department of Health and Rehabilitative Services. Approval is not recommended for reasons described in the attached.

Attachment (s)

JOHN A. BURNS
GOVERNOR
MAJOR GENERAL VALENTINE A. SIEFERMANN
DIRECTOR OF CIVIL DEFENSE

PHONE 734 2151

STATE OF HAWAII
DEPARTMENT OF DEFENSE
OFFICE OF THE DIRECTOR OF CIVIL DEFENSE
FORT RUGER
HONOLULU, HAWAII 96816

May 17, 1974

HICDRM

Mr. Kenneth E. Grant, Administrator
Soil Conservation Service, USDA
Washington, D. C. 20250

Dear Mr. Grant:

Thank you for the opportunity to review and comment upon the draft environmental impact statement for the Emergency Watershed Protection Program.

We consider the statement to be excellent and have no suggestions to change or amplify it.

Sincerely,

VALENTINE A. SIEFERMANN
Adjutant General
Director of Civil Defense

DEPARTMENT OF PLANNING
AND ECONOMIC DEVELOPMENT

JOHN A. BURNS
Governor

SHELLEY M. MARK
Director

EDWARD J. GREANEY, JR.
Deputy Director

250 South King St. / Honolulu, Hawaii 96813 / P. O. Box 2359 / Honolulu, Hawaii 96804

June 7, 1974

Ref. No. 0992

Mr. Kenneth E. Grant, Administrator
Soil Conservation Service
United States Department of Agriculture
Washington, D.C. 20250

Dear Mr. Grant:

Subject: Draft Environmental Impact Statement for the Emergency Watershed Protection Program

We have reviewed this draft statement and feel that it is generally adequate in its coverage of the probable effects of the proposed emergency measures to be installed under this program. The evaluation of alternatives appears to be well considered.

Thank you for the opportunity to review this statement.

Sincerely,

for E. J. Greaney

SHELLEY M. MARK

CECIL D. ANDRUS
GOVERNOR

ROBERT N. WISE
DIRECTOR

STATE OF IDAHO

STATE PLANNING AND COMMUNITY AFFAIRS AGENCY
BOISE, IDAHO 83720

June 13, 1974

Mr. Guy W. Nutt
State Conservationist
United States Department of Agriculture
Soil Conservation Service
Room 345, 304 North Eighth Street
Boise, Idaho 83702

Dear Mr. Nutt:

The State Clearinghouse, State Planning and Community Affairs Agency has completed its review of the Draft Environmental Statement for the Emergency Watershed Protection Program. The following State Agencies were notified of the proposal and given the opportunity for review and comment:

Department of Water Administration
* Fish and Game Department
Department of Environmental and Community Affairs
Water Resource Board
* Soil Conservation Commission
Public Lands
* Highway Department

(* Comments Submitted)

Your consideration of the attached comments in the preparation of the final statement will be appreciated.

We thank you for the opportunity for review. If we can be of any further assistance, please let us know.

Sincerely,

Karl Tueller

Karl Tueller
Associate Director for
Intergovernmental Coordination

KT:ls
cc. Fish & Game Department
Soil Conservation Commission
Highway Department

[illegible]
[illegible]
[illegible]
[illegible]
DOYLE L. SCOTT, ADMINISTRATIVE OFFICER
BOISE, IDAHO

STATE OF IDAHO

STATE SOIL CONSERVATION COMMISSION
BOISE, IDAHO
PHONE 384-2148

[illegible]
STAR ROUTE, MALAD, IDAHO
[illegible]
ROUTE 2 BOX 30 EAGLE IDAHO
CALVIN WRIGHT, SECRETARY
[illegible] BOISE IDAHO
HOWARD FISCUS, MEMBER
ROUTE 1 POTLATCH IDAHO
KENNETH ANDERSON, MEMBER
ROUTE 1 BOX 136 ROBERTS IDAHO

May 15, 1974

Mr. Karl Tueller
Associate Director for
Intergovernmental Coordination
State Planning & Community Affairs
Statehouse

Dear Karl:

This program is just what the title implies, Emergency Watershed Protection Program. It is put into effect only when there is an emergency which threatens damage or danter to life and/or property.

It is a program designed and intended to improve or restore an already damaged environmental situation. By its very authorization, the only intent is to improve the quality of environment.

The intent is clear. The authority is useable only in emergency. If the terms of the authority are met. no further comment or questions appear necessary.

Sincerely,

Doyle L. Scott

Doyle L. Scott
Administrative Officer

DLS:sh

RECEIVED
MAY 16 1974
STATE PLANNING AGENCY

KARL D. ANDRUS
GOVERNOR

IDAHO BOARD OF
HIGHWAY DIRECTORS

CARL C. MOORE, CHAIRMAN
LLOYD F. BARRON, VICE CHAIRMAN
ROY L. STROSCHEIN, MEMBER

DWANE SUMMERS
EXECUTIVE ASSISTANT

STATE OF IDAHO

V. N. RICHARDSON
STATE HIGHWAY ENGINEER

DEPARTMENT OF HIGHWAYS

P. O. BOX 7129
BOISE, IDAHO 83707

May 30, 1974

Mr. Karl Tueller
Associate Director for Ingergovernmental Coordination
State Planning and Community Affairs Agency
Boise, Idaho

Dear Mr. Tueller:

We do not have any comments to the U.S. Department of Agriculture, draft environmental impact statement on the Emergency Watershed Protection Program.

Very truly yours,

E. LeRoy Brady

E. LeROY BRADY
Environmental Manager

RECEIVED
MAY 31 1974
STATE PLANNING AGENCY



CECIL D. ANDRUS, Governor

COMMISSION
PETE THOMPSON, Sandpoint
PAUL C. KEETON, Lewiston
JOHN EATON, Cascade
JACK HEMINGWAY, Sun Valley
H. JACK ALVORD, Pocatello

IDAHO FISH AND GAME DEPARTMENT

JOSEPH C. GREENLEY
Director

POST OFFICE BOX 25
600 SOUTH WALNUT STREET
BOISE, IDAHO 83707

May 13, 1974

State Planning and Community Affairs Agency
Statehouse
Boise, ID 83720

Gentlemen:

The Idaho Fish and Game Department has reviewed the draft environmental impact statement regarding Emergency Watershed Protection Program authorized by Section 216 of the Flood Control Act of 1950, Public 81-516 (33 USC 701 V-1) prepared by the Soil Conservation Service.

We strongly endorse the philosophy of long-term permanent solutions to watershed protection and flood prevention. It appears that Alternatives 5B and 5C could be jointly combined as both have desirable features which would increase the management options. Channel clearance and debris removal projects have, in some instances in Idaho, been highly detrimental to fish and wildlife resources and must be carefully planned and coordinated with Fish and Wildlife Agencies to minimize their impact.

Idaho state law requires prior review and approval through a permit system for any stream channel work. Our department should be allowed review opportunity during the planning stages on all Emergency Watershed Protection programs.

Sincerely

IDAHO FISH AND GAME DEPARTMENT

Joseph C. Greenley
Director

RECEIVED
MAY 17 1974
STATE PLANNING AGENCY

STATE of INDIANA

INDIANAPOLIS, 46204

DEPARTMENT OF NATURAL RESOURCES
JOSEPH D. CLOUD
DIRECTOR

May 30, 1974

RECEIVED
1974 JUN 11 PM 3
SOIL CONSERVATION SERVICE
WASHINGTON, D.C.

Mr. Kenneth E. Grant, Administrator
Soil Conservation Service
United States Department of Agriculture
Washington, D.C. 20250

Dear Mr. Grant:

The Indiana Department of Natural Resources welcomes this opportunity to review and comment on the draft environmental impact statement for the emergency watershed protection program.

We suggest consideration of the following points:

1. Page 3, item 1a - It is true that areas devoid of vegetation due to fire cannot provide habitat, but fire actually improves habitat for certain wildlife species by providing more browse and increased ground cover.

2. Page 15, item 2c - The statement that a net gain is expected in beneficial wildlife habitat is questionable. Planting a monotype of herbaceous cover and a few clumps of wildlife species cannot replace the original diversified cover of trees, shrubs and forbs which existed before the disaster.

3. We would recommend alternatives be considered in the following order: 5d, 5b, 5e, 5c, 5a.

Thank you for the opportunity to comment on your proposed draft.

Sincerely,

Joseph D. Cloud, Director
Department of Natural Resources

JDC:GJP:ef

JUN 11 1974

STATE OF IOWA

Office for Planning and Programming

523 East 12th Street, Des Moines, Iowa 50319 Telephone 515 281-5974

ROBERT D. RAY
Governor

ROBERT F. TYSON
Director

STATE CLEARINGHOUSE

PROJECT NOTIFICATION AND REVIEW SIGNOFF

Date Received: May 1, 1974 State Identification No: 740590

Review Completed: May 20, 1974

APPLICANT PROJECT TITLE:
Draft EIS Emergency Watershed Protection Program

APPLICANT AGENCY:
Address: Kenneth E. Grant, Administrator, Soil Conservation Service — U.S. Department of Agriculture, Washington, D.C. 20250

FEDERAL PROGRAM TITLE, AGENCY AND CATALOG NUMBER:
10.904
U.S. Department of Agriculture
Soil Conservation Service
Watershed Protection and Flood Prevention

AMOUNT OF FUNDS REQUESTED:
N/A

PROJECT DESCRIPTION:

The Emergency Watershed Protection Program authorizes measures to be installed to safeguard lives and property from floods and the products of erosion whenever a fire or other natural element or force causes a sudden impairment of a watershed.

The State Clearinghouse makes the following disposition concerning this application:

/X/ No Comment Necessary. The application must be submitted as received by the Clearinghouse with this form attached as evidence that the required review has been performed.

/ / Comments Are Attached. The application must be submitted with this form plus the attached comments as evidence that the required review has been performed.

A. Thomas Wallace Jr.
Federal Funds Coordinator

State Identification No: 740590

PLEASE RETURN THIS PORTION OF FORM TO:

OFFICE FOR PLANNING AND PROGRAMMING
523 East 12th Street, Des Moines, Iowa 50319

Application officially submitted to _____ (Federal Agency) on _____ (Date)

_____
(Authorized applicant agency signature)

CH-14

STATE OF KANSAS

Department of Administration

DIVISION OF THE BUDGET

STATEHOUSE—TOPEKA 66612

May 20, 1974

Mr. Robert K. Griffin
U. S. Department of Agriculture
Soil Conservation Service
Box 600
Salina, Kansas 67401

RE: Emergency Watershed Protection Program
Clearinghouse Number 1152-10.998 (ES)

Dear Mr. Griffin:

The referenced environmental statement has been processed by the Division of the Budget under its clearinghouse responsibilities described in Circular A-95.

After review by interested state agencies, it has been found that the proposed project does not adversely affect state plans. We are enclosing comments received from the Division of Water Resources of the Board of Agriculture concerning this project for your information and referral.

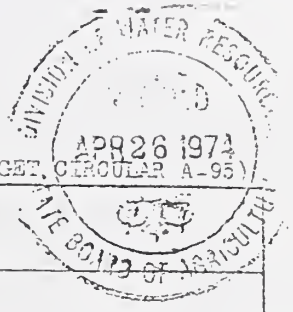
Sincerely yours,

James W. Bibb
Director of the Budget

JWB:DLW:rw

Enclosure

State Clearinghouse
State of Kansas



REQUEST FOR ACTION ON PROPOSAL (UNDER OFFICE OF MANAGEMENT AND BUDGET CIRCULAR A-95)

Agency Name	
Guy Gibson - Division of Water Resources, Bd. of Agriculture	
Clearinghouse Number 1152-10.998 (ES)	Applicant's Name U. S. Department of Agriculture
Expected Filing Date	Project Title Emergency Watershed Protection Program *
RETURN NO LATER THAN May 16, 1974	Return to Division of the Budget, Department of Administration, 1st Floor, Statehouse, Topeka, Kansas 66612

* ADDITIONAL INFORMATION AVAILABLE

The enclosed proposal has been submitted to the Division of the Budget under its clearinghouse responsibilities described in Office of Management and Budget Circular A-95. Your review of this proposal as it affects the interest of the state will be appreciated. Your appropriate comments concerning the proposal should be submitted to the Division of the Budget no later than the date specified above.

Comments filed on a proposal may include: (1) the extent to which the project is consistent with or contributes to the fulfillment of comprehensive planning within the state; (2) how the proposal relates to state objectives; and (3) the effect of the proposal on your agency's activities.

_____No Interest/No Objection

_____Request for Additional Information (discuss below)

_____Objections (discuss below)

_____Request for a Conference

COMMENTS:

The emergency measures listed in "Item IV. Brief Description of Action" may be subject to the provisions of either K.S.A. 24-126 or K.S.A. 82a-301 to 305, inclusive, requiring the approval and/or permit of the Chief Engineer of the Division of Water Resources.

Guy E. Gibson
Signature

STATE OF KANSAS
Forestry, Fish and Game Commission

Box 1028
PRATT, KANSAS 67124

Build a Pond
Plant a Bush
Grow a Tree

May 17, 1974

Kenneth E. Grant, Administrator
Soil Conservation Service
Washington, D. C. 20250

Dear Mr. Grant:

This will transmit our comments pertaining to the Draft Environmental Impact Statement for the Emergency Watershed Protection Program authorized by Public Law 81-516 as requested by letter dated April 24 from Kansas' State Conservationist, Robert K. Griffin.

The following specific comments are referenced to the appropriate part of the statement:

Section 2b, para. 4, pg. 15: This paragraph pertaining to wildlife habitat is misleading. Section 2b is to relate impacts resulting from installation of gully and log road control structures. Structural control of gully and log road erosion in certain situations could restore predisaster quality of stream and lake aquatic habitats through reduction of accelerated sedimentation. Whether or not habitat conditions were "improved" would depend on predisaster sedimentation rates. We find it difficult to visualize a situation where structural control on gullys would have an impact on natural wetlands as these areas are normally not located in terrain subject to gully formation. Impacts on wetlands by log roads in all probability would be caused by the presence of the road itself, rather than effects of a natural disaster upon that road.

Section 2c, para. 2, pg. 15: There is no better protective cover for streambanks than the natural riparian vegetation native to the area. If the disaster has not denuded the stream, there can be no justification for replacing riparian vegetation with rip-rap in the name of watershed protection.

The last sentence of this paragraph is completely erroneous. Assuming the stream was naturally vegetated prior to the disaster, which is still the case on streams unaltered by man, there would not be a "net gain" in wildlife habitat as a result of revegetation. At best, emergency revegetation <u>might</u> eventually <u>replace</u> lost wildlife habitat (after 20-50 years), but it is not likely any <u>additional</u> natural habitat will be gained. In fact, as a rule, when a floodplain is denuded by any manner, man reacts by encroaching upon it further rather than attempting to

reestablish it in natural vegetation. This fact is alluded to at the top of page 20.

Section 2d, para. 2, pg. 16: Whether or not emergency watershed protection measures are installed will have little influence on the amount of additional land under cultivation. Economic trends in agricultural commodities are the controlling influence in that regard.

Section 2d, para. 6, pg. 16: Sentence three of this paragraph is contradictory to the statement in Section 2c, para. 2. Our earlier comments relate to additional streamside clearing.

Section 2d, para. 10, pg. 17: This paragraph is relating an adverse impact of the disaster. It does not relate any impacts on aesthetics of natural valleys by work resulting from the Emergency Watershed Protection Program.

Section 2h, pp. 19-20: There are entirely too many uses of the term "may be" in this section.

Para. 1 - Streambank wildlife habitat will be degraded with any channel clearing, streambank stabilization, and dike installation. Results of the program must be compared to predisaster conditions to determine impacts.

Para. 2 - Fish habitat will be degraded by installation of emergency channel clearing, dikes, debris basins, etc.

Para. 3 - Water quality will be degraded by increased turbidity resulting from emergency measure construction (temporary) and increasing water temperature resulting from channel canopy removal (probably permanent).

In reference to comments Para. 2 and 3, it is not man's nature to allow reestablishment of a natural channel canopy once it has been removed.

Para. 5 - Air quality will be temporarily degraded by debris and waste burning.

Para. 8 - We have already commented on man's tendency to encroach on floodplain riparian habitats. When that occurs definite losses result to associated fish and wildlife habitats. The word "possible" should be stricken from this paragraph.

Section 5a, para. 2, pg. 21: It is extremely doubtful if a $300,000 annual expenditure would have such a definite influence on rural outmigration in disaster areas. There is no evidence that repeated natural disasters have caused an appreciable amount of rural land abandonment in the past. Current trends in agricultural economics discourage small farm holdings and encourage large farms causing an outmigration of rural families.

Section 5c, para. 4, pg. 23: This paragraph would have us believe there would be no natural restabilization of streambanks by riparian vegetation. By preventing man from encroaching and revegetating without channel modification, fish and wildlife habitat would eventually be at least restored.

Section 5c: Another alternative might be included in this section, use of tax incentives. High taxes on floodplain developments to discourage their installation and low taxes on land uses which are less prone to damage by periodic flood.

General Comments

A primary factor in the major flood disasters of 1973, especially along the Mississippi, was the progressive history of river channel alteration in the name of progress and subsequent development of floodplain lands by man. We have already lost most of the riparian communities along the nation's major rivers. If riparian communities are permitted to remain along our smaller stream channels, it is doubtful if floods severe enough to denude the streambanks could occur.

We need to guard against use of natural disaster to take the opportunity to kill viable natural streams by channelization in the name of Emergency Watershed Protection. The draft impact statement cites an example where such quite likely occurred with the 561 miles of stream channel clearing, stabilizing and restructuring following hurricane Camille. Once a natural stream channel has been cleared, man rarely allows it to return to a natural state.

We feel the program guidelines should require all permanent revegetation carried out under it be with grass, tree and shrub species native to the area treated. Stabilizing a streambank formerly vegetated with native grass, trees and shrubs with tame grass only will not restore the formerly diverse wildlife habitat.

The Kansas Forestry, Fish and Game Commission expresses its appreciation for being provided the opportunity to have its staff comment on this draft statement.

Sincerely,

Richard D. Wettersten
Director

RDW:RDW:pt

cc: Robert K. Griffin
State Conservationist
SCS, Salina

Cooperative
EXTENSION SERVICE
of Kansas State University

Division of Extension
Extension Forestry
2610 Claflin Road
MANHATTAN, KANSAS 66502
Phone: 913 532-5752

"Taking the UNIVERSITY to the PEOPLE"

May 13, 1974

RECEIVED IN THE WASHINGTON OFFICE
1974 MAY 17 PM 3:22
SOIL CONSERVATION SERVICE

Mr. Kenneth E. Grant
Administrator
Soil Conservation Service
Washington, D. C. 20250

Dear Mr. Grant:

We were recently furnished a copy of the Draft Environmental Impact Statement for the Emergency Watershed Protection Program for our review and comment. Several members of my staff have reviewed this statement and we have no specific comments to make concerning it. Most of the disaster situations described didn't fit our Kansas situation.

One of our foresters raised a question of whether this program might be used in cases where rapid loss of elms from Dutch elm disease along stream courses cause clogging of channels. However, it's unclear whether this could be included under the provisions of the Emergency Watershed Program.

We very much appreciate the opportunity to review and comment on this draft.

Very truly yours,

Harold Gallaher

Harold Gallaher
State and Extension Forester

HG/dlb
cc: Robert Griffin
Frank Kopecky

THOMAS O. HARRIS
SECRETARY

WENDELL H. FORD
GOVERNOR

COMMONWEALTH OF KENTUCKY
DEPARTMENT FOR NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION
OFFICE OF THE SECRETARY
FRANKFORT, KENTUCKY 40601
TELEPHONE (502) 564-3350

June 26, 1974

Mr. Kenneth E. Grant
Administrator
Soil Conservation Service
Washington, D. C. 20250

Dear Mr. Grant:

The Kentucky environmental review agencies have reviewed the draft environmental impact statement entitled "Emergency Watershed Protection Program". There were some comments made concerning this statement.

The Division of Air Pollution, Department for Natural Resources and Environmental Protection, has regulations which govern open burning and fugitive dust emissions. These should be adhered to during any actions taken under the "Emergency Watershed Protection Program". Of course, the success of the protection measures should not be jeopardized.

There was some uncertainty concerning the inclusion of flood damage assistance in this Program. Clarification is needed between this Program and the National Flood Insurance Program. A brief narrative explaining the similarities and differences between the two programs in the final statement would be welcomed.

Lastly, it was felt that certain measures which could be taken now to protect the watersheds would be the control of sedimentation into the waterways. It was suggested that revegetating areas denuded of vegetation would be an excellent watershed protection measure. This means watershed protection should be considered in the Program.

Aside from the above, there were no inadequacies detected in

the impact statement's coverage of the environmental impact expected to occur as a result of the project.

Sincerely,

Thomas O. Harris
SECRETARY

TOH:NNH:dch

cc Mr. Glen E. Murray, State Conservationist

ENVIRONMENTAL IMPACT STATEMENT REVIEW AGENCIES

Office of Planning and Research
(Clearinghouse)
Department for Natural Resources
and Environmental Protection

Mr. Sam Johnson, Director
Division of Solid Waste
Department for Natural Resources
and Environmental Protection

Mr. H. N. Kirkpatrick, Commissioner
Department of Mines and Minerals

Mr. Jim Gibson, Administrator
Office of Policy and Budget
Department for Human Resources

Office of the Secretary
Department of Transportation

Mr. Lyle Cobb, Director
Community Services
Department of Commerce

Kentucky Heritage Commission

Mr. Charles Pryor, Jr., Commissioner
Dept. for Finance and Administration

Dr. Lathel Duffield
Department of Anthropology
University of Kentucky

Mr. Wendell Butler, Commissioner
Department of Agriculture

Mr. Ewart Johnson, Commissioner
Department of Parks

Mr. Arnold Mitchell, Commissioner
Department of Fish and Wildlife

Office for Local Government

Mr. William Gayle, Director
Division of Conservation
Department for Natural Resources
and Environmental Protection

Mr. John Smither, Director
Division of Air Pollution
Department for Natural Resources
and Environmental Protection

Mr. Harry Nadler, Director
Division of Forestry
Department for Natural Resources
and Environmental Protection

Mr. Harold Snodgrass, Director
Division of Water Quality
Department for Natural Resources
and Environmental Protection

THOMAS O. HARRIS
SECRETARY

WENDELL H. FORD
GOVERNOR

COMMONWEALTH OF KENTUCKY
DEPARTMENT FOR NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION
OFFICE OF THE SECRETARY
FRANKFORT, KENTUCKY 40601
TELEPHONE (502) 564-3350

July 1, 1974

Mr. Kenneth E. Grant
Administrator
Soil Conservation Service
Washington, D. C. 20250

Dear Mr. Grant:

You recently received the Kentucky State comment on the draft environmental impact statement entitled "Emergency Watershed Protection Program". However, that comment did not contain the comments submitted by the Kentucky Department of Fish and Wildlife. They were late in their reply and as a result, I am having to forward you their comments separately. Their comments should still be considered part of the State comment on the impact statement.

I am sorry for the confusion and hope this late comment causes no problems.

Sincerely,

Thomas O. Harris

Thomas O. Harris
SECRETARY

TOH:NNH:dch

Enclosure

cc Mr. Glen E. Murray, State Conservationist

FISH & WILDLIFE
COMMISSION
BY DISTRICTS

1ST - DR. DONALD L. BOUCHER, PADUCAH
2ND - ERNEST C. NEIL, SCOTTSVILLE
3RD - HALE MURPHY, LOUISVILLE
4TH - DR. JAMES C. SALATO, COLUMBIA
5TH - DR. K. E. LANTER, UNION
6TH - CHARLES E. PALMER, JR., LEXINGTON
7TH - DR. C. L. ALLEN, MARTIN
8TH - DR. ROBERT C. WEBB, GRAYSON
9TH - JAMES McGLAMERY, BAXTER

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF FISH & WILDLIFE RESOURCES
ARNOLD L. MITCHELL, COMMISSIONER

CAPITAL PLAZA TOWER
FRANKFORT, KY. 40601
PHONE 564-3400

June 25, 1974

Environmental Review
Office of Planning and Research
Department for Natural Resources
and Environmental Protection
6th Floor, Capitol Plaza Tower
Frankfort, Kentucky 40601

Gentlemen:

Subject: Comments on Environmental Impact Statement for Emergency Watershed Protection Program

In general, this Impact Statement is adequate in summing up the effects of extreme damage to a watershed, but is inadequate in assessing the effects of the repair measures used. Structural measures proposed for use in watershed repair work should be explained in greater detail; for example, such terms as "diversions" and "land smoothing to remove irregularities" are too broad to assess their impact.

Most streambank erosion occurs where the land has been cleared to the stream edge for agricultural or development purposes. This points up the fact that nothing will stabilize a streambank as well as trees. Contrary to the Impact Statement, there is no net gain in beneficial wildlife habitat when streambank trees are replaced with grasses. Natural vegetation should not be disturbed to install riprap or other structural measures except where absolutely necessary.

Wooded cover along a stream is seldom removed by even the greatest flood, which is the only "disaster event" which would deposit large enough amounts of sediment and debris in a stream channel to warrant clearing. Therefore, streambank cover should not be removed to facilitate debris and sediment removal. To do so insures future problems with bank stabilization, not to mention the loss of wildlife habitat and excessively high water temperature created. Too much emphasis has been placed on possible benefits from channel clearing.

A fault that permeates the entire Impact Statement lies in the manner in which favorable and adverse impacts are presented. Favorable effects of the program are invariably presented as positive statements--"Reduce erosion..."; "Reduce downstream sedimentation..."; "Assure continued production..."; while adverse environmental effects are just as invariable presented as "maybes"--"Streambank wildlife habitat may be degraded..."; "Water quality may be temporarily degraded..."; "...loss of bottomland forest may occur...". This is typical of the way in which the Soil Conservation Service presents its programs, and it is long overdue for correction.

In reference to specific sections of the Impact Statement, the following comments are made:

Section 1d, Stream channels clogged with debris and sediment--Under emergency measures, "construction of open channel or floodwater diversion to reorient the stream" should be omitted from the allowable techniques. This would be a greater disaster to the stream than the natural disaster. It also greatly increases the flooding problem downstream, resulting in still more need for preventive measures. The aesthetics of natural valleys mentioned in Section 2d are not changed nearly as much by the event as by the "corrective measures" if streambank vegetation is removed and channels widened.

Section 1f, Implementation of the emergency watershed protection program--Construction techniques for minimizing stream sedimentation during emergency measure installation should include working from the stream bottom whenever possible to avoid damage to streambank vegetation.

Alternative 5b, Complete watershed protection and flood prevention program--This statement is ridiculous. Fish and wildlife habitat would be destroyed, not improved. No natural disaster can compare with the destruction caused by this kind of program. Nor is it a long term, permanent solution to the flooding problem. These channels are never maintained by the concerned interests, and must eventually be dredged again at taxpayer's expense. Downstream flooding problems are aggravated, also.

Alternative 5c, Land use changes and flood plain management measures--This alternative should be emphasized and developed more fully. Developed areas can grow in directions other than into the floodplain; there should be no economic hardship. This alternative should have included some limited stream restoration measures such as revegetation for streambank stabilization in denuded areas. Better floodplain management is the only permanent solution to flooding problems.

Watershed repair under the Emergency Program in Kentucky has been limited to streambank stabilization of small areas, with no great impact on the environment. Work on larger areas should be approached with extreme caution.

The Kentucky Department of Fish and Wildlife Resources appreciates this opportunity to comment on the Draft Environmental Impact Statement for the Emergency Watershed Protection Program.

Sincerely,

Arnold L. Mitchell

Arnold L. Mitchell
Commissioner

ALM:BLE:bg



PURCHASE
AREA DEVELOPMENT DISTRICT

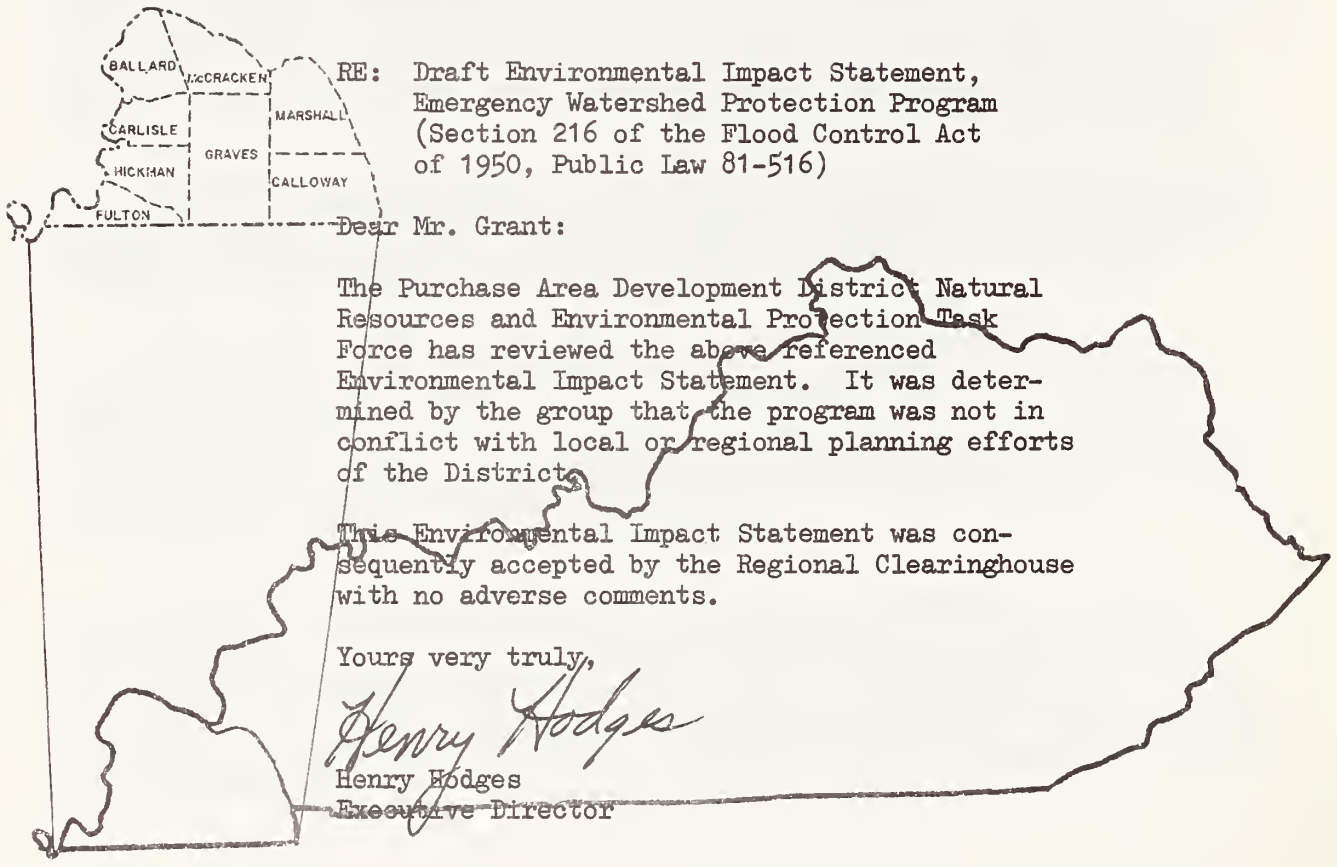
U.S. HIGHWAY 45N P.O. DRAWER N
MAYFIELD, KENTUCKY 42066

(502) 247-7171

RECEIVED MAIL ROOM
1974 JUL 22 PM 4: 2
SOIL CONSERVATION SERVICE
WASHINGTON, D.C.

18 July 1974

Mr. Kenneth E. Grant
Administrator
Soil Conservation Service
U. S. Department of Agriculture
Washington, D. C. 20250



RE: Draft Environmental Impact Statement,
Emergency Watershed Protection Program
(Section 216 of the Flood Control Act
of 1950, Public Law 81-516)

Dear Mr. Grant:

The Purchase Area Development District Natural Resources and Environmental Protection Task Force has reviewed the above referenced Environmental Impact Statement. It was determined by the group that the program was not in conflict with local or regional planning efforts of the District.

This Environmental Impact Statement was consequently accepted by the Regional Clearinghouse with no adverse comments.

Yours very truly,

Henry Hodges

Henry Hodges
Executive Director

HH/ms

LOUISIANA
STATE SOIL AND WATER CONSERVATION
COMMITTEE

CHAIRMAN
RICHARD S. THOMPSON
Rt. 2, Box 22
Colfax

VICE-CHAIRMAN
DR. J. N. EFFERSON
Chancellor — Center for
Agricultural Sciences and
Rural Development
Louisiana State University
Baton Rouge

SECRETARY-TREASURER
ANDREW YERGER
Mound

MEMBERS
DAVE L. PEARCE
Commissioner of Agriculture
Capitol Building
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GEORGE L. GAYDEN, JR.
Gurley

RALPH WOMACK
Athens

CHARLEY S. STAPLES
Executive Director

April 30, 1974

LOUISIANA STATE UNIVERSITY
P. O. DRAWER CS
Telephone 389-5017
BATON ROUGE, LOUISIANA 70803

Mr. Kenneth Grant, Administrator
Soil Conservation Service
U. S. Department of Agriculture
Washington, D. C. 20250

Dear Mr. Grant:

We have reviewed the draft of the environmental impact statement for Emergency Watershed Protection Program prepared in accordance with Section 102(2)(C) of PL 91-190.

We think the emergency measures as outlined in this program when they are needed are sufficient and we have no additional comments to make.

If you need further information, please let us know.

Sincerely,

Charley S. Staples

Charley S. Staples
Executive Director

CSS:p
cc: Richard S. Thompson
Alton Mangum
Carl Wilkins

RECEIVED (illegible)
1974 MAY -3 PM 2:1(illegible)
SOIL CONSERVATION (illegible)

MARYLAND
DEPARTMENT OF STATE PLANNING
301 WEST PRESTON STREET
BALTIMORE, MARYLAND 21201
TELEPHONE. 301-383-2451

MARVIN MANDEL
GOVERNOR

VLADIMIR A. WAHBE
SECRETARY OF STATE PLANNING
MADELINE L. SCHUSTER
DEPUTY SECRETARY

July 26, 1974

Mr. Kenneth E. Grant, Administrator
USDA Soil Conservation Service
Independence Avenue and 12th Street, S.W.
South Building
Washington, D. C. 20250

RE: Emergency Watershed Protection Program Draft Environmental Impact Statement
SCH #74-4-1097

Dear Mr. Grant:

The Department of Natural Resources has submitted revised comments on the referenced project and has requested withdrawal of their previous comments, dated May 31, 1974 and forwarded with our close-out letter on June 3, 1974.

These revised comments are attached with the request that they be substituted for the previous comments and be used in any future action on the project.

Your continued cooperation is appreciated.

Sincerely,

Warren D. Hodges
Chief, State Clearinghouse

Encl.
cc: Paul McKee
Graham T. Munkittrick
sw

Maryland Department of State Planning
State Office Building
301 West Preston Street
Baltimore, Maryland 21201

Date: May 21, 1974

SUBJECT: ENVIRONMENTAL IMPACT STATEMENT REVIEW

Applicant: U. S. Department of Agriculture

Project: Emergency Watershed Protection Program

State Clearinghouse Control Number: 74-4-1097

We have reviewed the above draft environmental impact statement and our comments as to the adequacy of treatment of physical, ecological, and sociological effects of concern are shown below:

	Check (X) for each item	
	None	Comment enclosed
1. Additional specific effects which should be assessed:	X	
2. Additional alternatives which should be considered:	X	
3. Better or more appropriate measures and standards which should be used to evaluate environmental effects:	X	
4. Additional control measures which should be applied to reduce adverse environmental effects or to avoid or minimize the irreversible or irretrievable commitment of resources:	X	
5. Our assessment of how serious the environmental damage from this project might be, using the best alternative and control measures:	X	
6. We identify issues which require further discussion of resolution as shown:	X	

Signature Yong D. Han

Title Secretary

Agency Maryland Dept. of Agriculture

Maryland Department of State Planning
State Office Building
301 West Preston Street
Baltimore, Maryland 21201

Date: May 1, 1974

SUBJECT: ENVIRONMENTAL IMPACT STATEMENT REVIEW

MAY 2 1974

Applicant: U. S. Department of Agriculture

Project: Emergency Watershed Protection Program

State Clearinghouse Control Number: 74-4-1097

We have reviewed the above draft environmental impact statement and our comments as to the adequacy of treatment of physical, ecological, and sociological effects of concern are shown below:

	Check (X) for each item	
	None	Comment enclosed
1. Additional specific effects which should be assessed:	X	
2. Additional alternatives which should be considered:	X	
3. Better or more appropriate measures and standards which should be used to evaluate environmental effects:	X	
4. Additional control measures which should be applied to reduce adverse environmental effects or to avoid or minimize the irreversible or irretrievable commitment of resources:	X	
5. Our assessment of how serious the environmental damage from this project might be, using the best alternative and control measures:	X	
6. We identify issues which require further discussion of resolution as shown:	X	

Signature Clyde C. Pyle

Title Director, Division of Systems Planning and Development

Agency Maryland Department of Transportation

AMES B. COULTER
SECRETARY

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
TAWES STATE OFFICE BUILDING
ANNAPOLIS 21401

LOUIS N. PHIPPS, JR.
DEPUTY SECRETARY

July 22, 1974

Mr. Warren D. Hodges, Chief
State Clearinghouse
Department of State Planning
301 W. Preston Street
Baltimore, Maryland 21201

Re: State Clearinghouse Project 74-4-1097
(Emergency Watershed Protection Program of SCS)

Dear Mr. Hodges:

In response to requests from units of the Department of Natural Resources, I am attaching a revised statement regarding this project with the request that you withdraw the previous comments submitted on May 31, 1974, and accept this statement as the Department of Natural Resources comments on the above project.

Sincerely,

Paul W. McKee
Assistant Secretary

PWM:fcg
Enc.

cc: Herbert M. Sachs-WRA

STATE PLANNING
RECEIVED
JUL 25 1974

JAMES B. COULTER
SECRETARY

LOUIS N. PHIPPS, JR.
DEPUTY SECRETARY

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
TAWES STATE OFFICE BUILDING
ANNAPOLIS 21401

July 22, 1974

COMMENTS OF THE DEPARTMENT OF NATURAL RESOURCES ON

STATE CLEARINGHOUSE PROJECT NUMBER: 74-4-1097

PROJECT: Emergency Watershed Protection Program of SCS - Draft EIS

Section 1(f) of the draft EIS relating to implementation of the program states that other federal, State, and local agencies are invited to participate in and coordinate with the emergency program. The Department of Natural Resources coordinated closely with the Soil Conservation Service during the last disaster event in Maryland, Hurricane Agnes of 1972. The Department feels that this statement can be given more meaning by briefly outlining, as an example, the following procedures and practices that were implemented in Maryland following the 1972 disaster:

1. Staff of the Soil Conservation Service conducted a preliminary investigation of damaged areas shortly after the storm, and submitted a request for emergency treatment assistance.
2. Upon receipt of initial funds, actual field operations began on several critical projects.

3. Following full funding approval, the State Conservationist contacted the Secretary of Natural Resources seeking the Department's input into their final planning and coordination meeting prior to initiating full scale field work. At the direction of the Secretary, staff of the Water Resources Administration attended this meeting. Certain proposals, such as routine reshaping of meanders and gravel deposits, were ruled out at this meeting.

4. Shortly after this meeting, the Director of the Water Resources Administration sent a written statement to the Soil Conservation Service specifying the following requirements to be in effect for emergency work in lieu of normal permit procedures:

   a. Submission of notice of the location and nature of all projects. Some of these, such as proposed channel changes, would require site reviews.

   b. Notification of any "unusual" field circumstances involving any on-going project.

   c. Notification of the status of projects including starting and completion dates.

   Special emphasis was also placed on the importance of adhering to the concept and purpose of "emergency" projects.

5. Based on initial investigations of the emergency work, the Director of the Water Resources Administration found it necessary to issue the following more specific guidelines:

   a. Use of heavy equipment directly in stream channels is limited to sites where 50% or more of the cross section of the channel was blocked. This criteria did not apply to debris removal at bridges, culverts, etc. where maximum practicable removal of debris could be accomplished.

   b. Where and when the use of heavy equipment is appropriate, it should be placed in-stream only at existing points of access.

   c. Where stream blockage is less than 50%, only the use of labor crews and hand tools is allowed.

   d. Where possible, fallen trees which are to be removed should not be dragged through the stream or adjacent woods, but instead placed within a reasonable distance from the stream bank.

   e. Use of heavy equipment in trout stream is prohibited after March 1; in streams with anadromous fish runs, after March 15.

6. As a result of a detailed field review or problems encountered on an emergency project in Howard County,

the Director of the Water Resources Administration issued the following supplemental set of guidelines:

a. An entire project should be investigated initially to designate those 50% blockages which require the use of heavy equipment. Said blockages should be indicated on site maps.

b. The manner and type of access, such as existing roadways, adjacent fields, and open woodland, available to these blockages should be investigated by the Soil Conservation Service. A careful evaluation should be made of access routes to determine those involving the minimum damage to floodplain and stream habitat. In general, it is not acceptable to make extensive trails alongside the stream channel or through wooded areas.

c. Trees lining the stream bank should be carefully evaluated for their vitality, habitat value and degree of blockage danger prior to any removal.

d. Use of additional types of equipment, such as rubber-tired logging skidders, should be considered in place of or in conjunction with tracked equipment.

7. For the remainder of the emergency work, field staff of the Water Resources Administration and other agencies made inspections of the work and resolved any minor problems at each site.

Items one and two above did present some problem. The preliminary investigation should have involved staff from several agencies within the Department. Coordination and communication would have been greatly improved by joint action at this starting point. Following this procedure would also provide an opportunity to designate those critical projects that should start as soon as any funds are available.

In general, it was the Department's experience that the Soil Conservation Service made a reasonable attempt to comply with the procedures and guidelines referenced above. The Department realizes that implementation of such guidelines or others relating to emergency work is often times a difficult task, especially along reaches of natural stream channel and floodplain between road crossings. The Department, however, is of the firm conviction that such guidelines can, for the most part, be adequately followed and can provide effective protection against unnecessary damage to the environment.

In addition to the above referenced guidelines utilized in Maryland, the Susquehanna River Basin Commission has formulated guidelines (copy attached) for stream clearance and restoration relating to emergency events. Therefore, it is recommended that the Soil Conservation Service recognize the need for and reflect in the EIS procedures similar to those enumerated in these various guidelines for future emergency work.

The Department's deepest concern regarding this whole emergency program is directed more towards the original concept than the actual details of operation. In the case of Hurricane Agnes, it seems that much of the work which was conducted was more "prevention oriented" than "emergency oriented." Apparently, the Soil Conservation Service established, as given, that debris located many hundreds or even thousands of feet upstream of bridges and road crossings represents a significant hazard. Of course, getting equipment into wooded areas to remove such debris is going to cause some damage. In essence, once you accept the premise that most debris is a "problem" then you are committed to an extensive and far-reaching clearance program which could have serious environmental side effects. Based on the Department's overall evaluation of the emergency clearance programs undertaken by both the Soil Conservation Service and the Corps of Engineers following Agnes, it is our opinion that such work should be limited to the immediate vicinity of cultural features such as bridges, culverts, other structures, etc. By immediate we mean no more than 500 feet upstream or downstream from the point in question. Activities other than stream clearance should also be carefully evaluated to determine the proper parameters for consideration as an emergency.

Finally, the Department fully supports alternative 5(c) "land use changes and floodplain management." Such a watershed protection program is more in keeping with the Department's viewpoint regarding proper stormwater and floodplain management.

SUSQUEHANNA RIVER BASIN COMMISSION
5012 Lenker Street Mechanicsburg, Pennsylvania 17055

November 8, 1973

TO ALL CONCERNED PERSONS:

After Tropical Storm Agnes, extensive emergency clearance activities were required to remove debris and wreckage deposited during the period of flooding. Some of these corrective efforts were found to include unauthorized and unnecessary channelization and other physical alteration of natural stream bed features that were considered to be unfavorable. On the basis of recommendations by Federal, State and private agencies it was decided that there was a need to develop guidelines for the conduct of emergency stream clearance work. This effort was later expanded to include stream clearance work of an emergency and non-emergency nature. The guidelines which are attached were developed and subjected to review in full cooperation with Federal and State agencies and subsequently adopted by the Commission.

The Commission recommends that these guidelines be adopted by those agencies of the signatory parties which have responsibility for regulating stream clearance activities.

Additional copies are available upon request and permission to reprint or otherwise reproduce any or all parts of the guidelines is authorized.

SUSQUEHANNA RIVER BASIN COMMISSION

GUIDELINES

STREAM CLEARANCE AND RESTORATION

OCTOBER 12, 1973

BACKGROUND

The deposition of debris and wreckage in streams following hurricanes, storms and floods often creates flood hazards that require correction.

It has been observed that frequently the corrective efforts include unnecessary and unauthorized channelization, straightening of meanders and physical alteration of natural stream bed features, destruction of vegetation along stream banks and deposition of debris within areas subject to future flooding. The results can be loss of aesthetic qualities, destruction of fish and wildlife habitat, reduced recreation usefulness, and increased potential for erosion and sedimentation.

Stream clearance and restoration may, in a major disaster, be conducted with Federal assistance under the Office of Emergency Preparedness Disaster Assistance Program. Otherwise support and direction of corrective action may come from State or local government or through the efforts of other public or private interests.

A common denominator among the various programs is that requests for stream clearance work usually originate with local government or the individual property owner. Proposals for projects can be roughly classed into two groups.

(1) Those in which there is an imminent flood threat to life and property.

(2) Those in which a future flood hazard condition has been created.

The response to the first condition obviously requires immediate action by available means or methods to alleviate the problem. The second, which makes up the great bulk of debris and wreckage removal projects, usually is not identified until after the emergency has passed and can be addressed in a time frame based on the severity of the actual hazard presented.

Responsible Federal agencies along with State game, fish and environmental agencies have recognized a need to prevent unfavorable environmental impacts as a result of these stream restoration and clearance operations. Normally

such work is covered by a State administered permit system; however, there remains a need for the development of general guidelines regarding stream clearance and restoration work.

PURPOSE AND SCOPE

The purpose of the Commission's proposed guidelines is twofold: 1) to help co-ordinate and formulate a uniform policy for stream clearance and restoration throughout the basin in both emergency and non-emergency situations and, 2) to prevent environmental degradation during stream clearance and restoration operations and insure preflood environmental quality upon completion of the work.

The scope of the guidelines covers stream clearance and restoration work necessary to correct flood hazard conditions created by flood flows or deposition of debris from other causes and includes: definition of terms, listing of objectives, general and specific work guidelines and recommendations for co-ordination and regulation of stream clearance and restoration projects and programs. In addition to the guidelines contained herein, all applicable Federal, State and local laws and regulations apply. Specific on-site requirements may be added by appropriate Federal or State agency representatives.

Stream clearance and restoration is defined as the removal of debris and wreckage and restoration of the stream channel to its preflood discharge capability and conditions, and as necessary, stabilization of the stream banks through the affected area.

Debris and wreckage are defined as any materials which have been deposited or caused to be accumulated in a stream by the effects of high water and which impede the flow of water creating a potential flood hazard, or that encourage bank erosion and alteration of the regular stream channel.

OBJECTIVES

The objectives in establishing the proposed guidelines are to:

(1) Insure work is accomplished on those stream reaches where accumulations of debris and wreckage and/or bank erosion has caused a change of channel that poses a potential flood hazard to life and developed property.

(2) Insure clearance and restoration work does not unnecessarily alter the natural meander

and course of the stream, or the general contour of the stream bed and vegetative cover of its banks.

(3) Protect fish and wildlife habitat as well as natural aesthetic qualities of the stream.

(4) Establish standards for doing work that will coincide with applicable Federal, State and local laws, and regulations concerning environmental pollution control and prevention.

(5) Establish co-ordination of Federal, State and local government and private interests relative to stream clearance and restoration projects.

GENERAL GUIDELINES FOR CONDUCT OF STREAM CLEARANCE AND RESTORATION WORK

(1) The landowner or the Contractor must obtain the necessary permit for the clearance work and indicate an understanding of applicable regulations and of these guidelines before work is started.

(2) When and where possible all heavy equipment should be kept out of the stream during the conduct of the work.

(3) Materials such as logs, stumps and other large and heavy pieces of debris should be winched or lifted out of the stream when possible.

(4) Generally only debris restricting the flow of the stream should be removed; however, the field representative of the permit issuing agency should exercise individual discretion relative to removal of additional material.

(5) Channelization should be avoided.

(6) Spoil piles should be established away from the stream above high water elevation. All possible precautions should be taken to minimize damage to timber trees, shrubs and ground cover along the stream bank in the work area and in developing access ways.

(7) Access ways and storage areas should be restored by the contractor upon completion of the job. Immediate stream bank areas in the work area should be reseeded or replanted promptly.

(8) Burning of any debris removed from the stream should only be done with the proper permits.

(9) Stream gradients shall not be made uniform nor shall "sheeting" conditions be created during restoration work.

(10) Restoration in areas where flood hazard potential is minimal should receive low priority for action.

DISCUSSION AND APPLICATION OF GUIDELINES

I. PROTECTION OF LAND RESOURCES

It is intended the land and water resources outside the limits of the permanent work performed be preserved in their present condition or be restored to a condition after completion of clearance and restoration that will appear to be natural and not detract from the appearance of the natural stream. The work shall be confined to the area defined in the permit.

A. PREVENTION OF LANDSCAPE DEFACEMENT

Except in areas designated to be cleared the contractor shall take care not to cause undue damage to or remove trees and/or shrubs without special authority from the agency issuing the permit, their authorized representative, or the landowner.

B. RESTORATION OF DAMAGED LANDSCAPE

Any tree or other landscape feature scarred or damaged by the contractor's equipment or operations shall be restored as nearly as possible to its original condition at the contractor's expense. A representative of the agency issuing the permit or assigned inspection work will decide what method of restoration shall be used, and whether damaged trees shall be treated or removed and disposed of under requirements for clearing and grubbing. All scars made on valuable timber trees and shrubs not designated on the plans to be removed, or by the removal of limbs, shall be coated as soon as possible with an approved tree wound dressing. All trimming or pruning shall be performed in an approved manner.

Valuable timber trees that are to remain, either within or outside the established clearing limits, that are subsequently damaged by the contractor and are beyond saving, shall immediately be removed and replaced with well started nursery grown trees of the same or appropriate species. Areas of ground cover destroyed by the

contractor's equipment or operations will be reseeded as nearly as possible to original conditions at the contractor's expense.

C. STORAGE AND HOUSING

The location of the contractor's storage and service facilities, required temporarily in the performance of the work, shall be upon cleared portions of the job site or areas to be cleared. The preservation of the landscape shall be an imperative consideration in the selection of all such sites.

D. TEMPORARY EXCAVATION AND EMBANKMENTS

If the contractor proposes to construct temporary roads or embankments and excavations for plant and/or work areas, he shall obtain approval of the desired action from the permit agency prior to the start of the work.

E. POST-CONSTRUCTION CLEANUP OR OBLITERATION

The contractor shall remove all signs of temporary construction facilities such as haul roads, work areas, structures, foundations of temporary structures, stockpiles of excess or waste materials, or any other vestiges of construction operations upon completion of the project. It is anticipated that excavation, filling and plowing of roadways will be required to restore the area to near natural conditions which will permit the growth of vegetation thereon. The disturbed areas shall be graded and filled as required, and soil sufficient to establish rough ground cover shall be spread to a depth of approximately 6 inches over the entire area and the entire area seeded. Restoration of original contours is not required.

II. PROTECTION OF WATER RESOURCES

Persons conducting stream clearance shall not pollute streams, lakes or reservoirs with fuels, oils, bitumens,

calcium chloride, acids or harmful materials. All work under permit shall be performed in such a manner that objectionable conditions will not be created in streams through or adjacent to the contract areas.

A. SPILLAGES

Measures shall be taken to prevent chemicals, fuels, oils, greases, bitumious materials, waste washings, and cement drainage from entering public waters.

B. DISPOSAL

Disposal of any materials, wastes, effluents, trash, garbage, oil, grease, chemicals, etc., in areas adjacent to streams shall be subject to the approval of the permit agency representative for reasons similar to those stated above.

If any waste material is dumped in unauthorized areas the contractor shall remove the material and restore the area to the condition of the adjacent undisturbed area. If necessary, contaminated ground shall be excavated, disposed of as directed by the agency representative, and replaced with suitable fill material, compacted and finished with topsoil all at the expense of the contractor.

C. EROSION CONTROL

The contractor will observe construction practices designed to minimize erosion and sedimentation as a result of necessary instream or bank work. Stream crossings will be kept to a minimum as well as the operation of equipment in the stream. To the extent possible equipment, such as drag lines, grade-alls, or back hoes that may operate from the stream bank should be used. Where the use of such equipment from the stream bank requires an undue amount of clearing, other types of equipment such as a rubber tired front-end loader may be used in the stream. Equipment such as a bulldozer should only be used where clearance and restoration work cannot be established within the limits

of practicality by other equipment. All disturbed areas above the normal water line will be protected from erosion within 20 days by mulching, seeding, planting or mechanical means.

Decisions relative to type of equipment to be used may be made on site by the agency authorizing the work.

D. PROTECTION OF FISH AND WILDLIFE

The contractor shall at all times perform all work and take such steps required to prevent destruction of fish and wildlife. The contractor will not be permitted to alter water flows or otherwise disturb native habitat adjacent to the contract area which are critical to fish or wildlife. Fouling or pollution of water will not be permitted.

Rooted trees and shrubs on stream banks will not be removed except where necessary for access to the stream. Number and location of access points will be approved in the permit.

Access roads and stream crossings to be built by the contractor will be kept to a minimum and should avoid wetlands and other special areas of fish or wildlife habitat designated by the appropriate State agency.

Stream clearing will include only the removal of uprooted trees and vegetation and foreign debris. Rooted vegetation will remain except in isolated instances where precariously situated trees pose a danger to life or property, or where downstream flooding is a threat if such objects are not removed from the stream.

Minor vegetative debris in the stream and on banks will remain in those cases where removal of such material would be destructive to stream banks and vegetative cover.

Eroded stream banks will be regraded to their original character and seeded with approved seeding mixtures. This action will be undertaken only when there is reasonable certainty for a stable repair.

During the course of work the stream bed gradient will not be reshaped to a uniform gradient, thereby eliminating

the natural pool-riffle relationship. Care must be exercised not to create "sheeting" or extensive shallow water conditions which extend the full width of the stream channel.

Where scouring or other actions caused by flooding have caused the above conditions in the stream, the reestablishment of pool-riffle conditions and a low flow channel can be achieved through proper placement of low deflectors and/or large boulders. Such action should be taken only on approval of the permit issuing agency or its field representative to assure the action will not reestablish the flood hazard or have some other unfavorable impact.

Stream bottom replacement material, if needed, should consist of boulders, rubble and coarse gravel. The use of sand and fine gravel as replacement material should be avoided.

Debris spoil piles shall be located so that the debris will not re-enter the water during high stream flow.

E. BURNING

General restrictions applicable to stream clearance and restoration projects are as follows:

(1) Material not specified to be disposed of in other manners may be burned within the contract area and at any time within the contract period, as specified by local regulations or waivers, stipulated in the permit, provided such burning does not create a fire or significant air pollution hazard.

(2) The specific time, location and manner of burning shall be subject to the approval of the permit agency representative from the viewpoints of air pollution, governing fire and air pollution laws and safety.

(3) In the interest of conservation, the contractor may, should he desire to do so, make available to the general public without charge, the material scheduled for burning.

(4) No burning operations shall be conducted within 100 feet of any standing timber or other flammable growth. Burning shall be accomplished in such a way as to protect vegetation which is to remain.

(5) All burning shall be sufficiently thorough that the materials will be reduced to ashes.

(6) Charred material will be buried after it is determined that it can not be disposed of by methods used in the normal burning operation. All material disposed of in such manner shall be buried at locations approved in the permit.

(7) Fires shall be guarded at all times and shall be under constant surveillance until they have been extinguished.

(8) The contractor shall furnish at the site adequate fire fighting equipment to properly equip his personnel for fighting fires.

The contractor will be responsible for any damage to life and/or property resulting from fires that are started by his employes or as a result of his operations.

MAINTENANCE OF POLLUTION CONTROL FACILITIES DURING CONSTRUCTION

During the construction period the contractor will conduct frequent inspections and provide environmental protection guidance to his personnel. This guidance should include methods of preventing pollution, restoring natural ecological conditions, and installation of vegetation cover, fish and wildlife measures, and facilities to prevent and correct environmental degradation to water and aesthetic qualities. The contractor shall remain responsible throughout the period of the contract for providing all necessary personnel and equipment and the conduct of various actions as necessary to prevent environmental damages and to protect fish and wildlife as they may be involved in the project area.

COORDINATION AND REGULATION

Stream clearance and restoration projects are mainly of local significance. All such projects should be conducted under a State permit that meets or exceeds these guidelines in terms of protection of the environmental quality of the area under consideration. The permit requirements should be established by the signatory State in which the project is located. Where such permit or specific system for the control of stream clearance and restoration projects is not provided by the signatory State, the Susquehanna River Basin Commission will, in the basin, assume such jurisdiction under provisions of its Compact, and in direct cooperation with appropriate agencies of the signatory State, require adherence to these guidelines. Exceptions will be work performed under imminent flood threat and during the period when a declared state of emergency exists following a major flood disaster.

Normally application for all stream clearance and restoration work, unless otherwise excepted, shall be made directly to the State agency responsible for control of stream encroachment. The lead State agency, or the Commission where applicable, will advise the Fish, Game and other interested State agencies and the conservation district of the application and request their comment and cooperation in the inspection and control of such projects. Approved applications returned to the applicant should require a return receipt form indicating the applicant is fully aware of all conditions of the permit or other form of authorization and agrees to comply with all stated requirements and those imposed by an appropriate State representative after on-site inspection during the conduct of the work. Key agencies should be kept apprised of all approved permits. The investigation and inspection system should be established and funded as a part of the overall project cost to the funding agency or interest.

For work to be conducted under emergency conditions immediately after a flood disaster, appropriate State agencies should establish an emergency procedure for prompt authorization and regulation of emergency stream clearance work. Field teams on a regional and local (county) basis should be designated, trained and authorized to act in the

field to approve and set conditions for emergency clearance projects to the extent necessary to alleviate flood hazard situations and insure protection of the environment in the project area.

AGENCIES WHICH PARTICIPATED IN THE DEVELOPMENT OF THE STREAM CLEARANCE GUIDELINES

Baltimore District Corps of Engineers

Joint Legislative Air and Water Pollution Control and Conservation Committee of the Pennsylvania Legislature

Md. Department of Natural Resources

Md. Fish Administration, Department of Natural Resources

N.Y. Department of Environmental Conservation

Office of Emergency Preparedness

Pa. Department of Environmental Resources

Pa. Fish Commission

Pa. Game Commission

Soil Conservation Service, Harrisburg, Pa.

Soil Conservation Service, Syracuse, N.Y.

STATE OF MISSISSIPPI

OFFICE OF THE GOVERNOR

WILLIAM L. WALLER
GOVERNOR

WM. M. HEADRICK
COORDINATOR OF FEDERAL-STATE PROGRAMS

STATE CLEARINGHOUSE FOR FEDERAL PROGRAMS

TO: Mr. H. P. Fulmer, Deputy State Conservationist
USDA, Soil Conservation Service
Post Office Box 610
Jackson, Mississippi 39205

State Clearinghouse Number
74050305

Date: May 30, 1974

PROJECT DESCRIPTION: Draft Environmental Impact Statement -- Emergency Watershed Protection Program.

(x) 1. The State Clearinghouse has received notification of intent to apply for Federal assistance as described above.

(--) 2. The State Clearinghouse has reviewed the application(s) for Federal assistance described above.

(x) 3. After proper notification, no State agency has expressed an interest in conferring with the applicant(s) or commenting on the proposed project.

(--) 4. The proposed project is: ( ) consistent ( ) inconsistent with an applicable State plan for Mississippi.

(x) 5. Although there is no applicable State plan for Mississippi, the proposed project appears to be: (x) consistent ( ) inconsistent with present State goals and policies.

COMMENTS: This notice constitutes FINAL STATE CLEARINGHOUSE REVIEW AND COMMENT. The requirements of U. S. Office of Management and Budget Circular No. A-95 have been met at the State level.

Edward A. May, Jr.
Assistant to the Coordinator

SUITE 400, WATKINS BLDG. • 510 GEORGE STREET • JACKSON 39201 • (601) 354-7570

STATE OF MISSOURI

CHRISTOPHER S. BOND
GOVERNOR

DEPARTMENT OF COMMUNITY AFFAIRS

ALFRED C. SIKES
DIRECTOR

505 MISSOURI BOULEVARD
JEFFERSON CITY, MISSOURI 65101
(314) 751-4114

May 24, 1974

Mr. Kenneth E. Grant, Administrator
Soil Conservation Service
Washington, D.C. 20250

Dear Mr. Grant:

Subject: Draft Environmental Impact Statement on Emergency Watershed Protection Program Authorized by Section 216 of the Flood Control Act of 1950, Public Law 81-516 (33 USC 701b-1) DOCA 74040057

The Office of Planning, as the designated State Clearinghouse, has coordinated a review of the above referred draft environmental impact statement with various concerned or affected state agencies pursuant to Section 102(2)(c) of the National Environmental Policy Act.

Enclosed please find the comments received. None of the other state agencies involved in the review had comments or recommendations to offer at this time.

We appreciate the opportunity to review the statement and anticipate receiving the final environmental impact statement when prepared.

Sincerely,

Terry L. Rehma
A-95 Coordinator

MISSOURI GEOLOGICAL SURVEY AND WATER RESOURCES
BUEHLER PARK ROLLA MISSOURI 65401 314-364-1752

WALLACE B. HOWE STATE GEOLOGIST AND DIRECTOR

LARRY D. FELLOWS ASSISTANT STATE GEOLOGIST

May 15, 1974

Mr. Terry Rehma
A-95 Coordinator
Department of Community Affairs
505 Missouri Boulevard
Jefferson City, Missouri 65101

Dear Mr. Rehma:

(A-95 Nos. 74040057 & 74040079)

The Missouri Geological Survey has reviewed the pre-application notices listed above and would like to make the following comment:

Emergency Watershed Protection Program, U. S. Department of Agriculture (DOCA 74040057). In our opinion it would be wise to place more emphasis on dam failure. Mine tailings dams, such as in the barite district and in the lead producing areas have failed and caused considerable damage in the past. Likewise water from coal strip pits has caused fish kills and erosion. Failure of some dams has caused roads to wash out and has spread sediment far downstream. Perhaps the erosion and sedimentation aspect of dam failure is not adequately brought out.

PWSD #1 of Madison County. (DOCA 74040079). Obtaining an adequate supply of potable water might be a problem in Madison County if an additional well will be needed.

We will be involved with other projects later because of our cooperative work with other agencies or with formal interagency committees.

Sincerely yours,

Wallace B. Howe

Wallace B. Howe
State Geologist and Director

WBH:LDF:cs

MISSOURI DEPARTMENT OF CONSERVATION
2901 North Ten Mile Drive - Jefferson City, Missouri 65101
P. O. Box 180 - Telephone 314 751 4115
CARL R. NOREN, Director

May 13, 1974

Mr. Terry Rehma
Clearinghouse Coordinator
Department of Community Affairs
505 Missouri Boulevard
Jefferson City, Missouri 65101

Re: 74040057

Dear Mr. Rehma:

The draft environmental impact statement for the Emergency Watershed Protection Program has been reviewed by our staff. During the past several months, the Department of Conservation has been involved with various Emergency Watershed Programs therefore our response is based on field observations of the conduct of this program as well as the review of the impact statement.

The draft statement is generally accurate in its assessment of the program and is fairly well written. The coordination with state and local agencies mentioned in Section 6 helped stem potentially damaging aspects in several instances and is therefore a valuable feature of the program. These instances involved projects that might have had excessive streamside clearing or meander channel modification had the planning process not involved some degree of coordination. While the statement addresses itself to coordination and planning, no reference is made to field supervision of the approved work plans during construction. Since the present program does not provide much overhead for this aspect, these plans are often left to the discretion of local contractors. This situation could, in a poorly supervised situation, lead to environmentally destructive consequences in an otherwise environmentally sound plan.

In many of the Missouri plans reviewed, the "emergency situation" was the result of past flood plain abuses compounded by the heavy spring rains of 1973. Logging, land clearing for agriculture and post channel modification

COMMISSION

JIM TOM BLAIR
St. Louis

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Charleston

HARRY MILLS
Clinton

G. ANDY RUNGE
Mexico

practices set the stage for the "problems created by the 1973 flooding". In these instances, the use of emergency funds may assist in the continuation of these unwise land use practices. This potential was not fully addressed in Section 2 of the statement. This problem of land treatment, both in the uplands as well as in the flood plain, was not discussed in Section 5.

We appreciate the opportunity to review.

Sincerely,

Larry R. Gale

LARRY R. GALE
ACTING DIRECTOR

STATE OF MONTANA

DEPARTMENT OF FISH AND GAME

HELENA, MONTANA

Office Memorandum

TO : Wesley R. Woodgerd Attn: Jim Posewitz DATE: June 20, 1974

FROM : LeRoy Ellig By : Don Bianchi

SUBJECT: Emergency Watershed Protection Program

This draft EIS basically attempts to cover all watershed emergencies such as fires, floods, etc. and therefore is very general and difficult to evaluate. The general approach seems to be a revegetation program to reduce erosion and stream siltation following an emergency which seems logical. Yet, as you progress through the statement, look at the alternatives and evaluate the Soil Conservation Service's existing Emergency Watershed Protection Program it's quite apparent that in most instances their program is not actually a solution but is only a "band-aid" approach to the problem.

For example, the EIS goes to great length in trying to justify the many methods now being used such as channel debris clearance, streambank rip-rapping, etc., as solutions. But, finally, under alternative 5c, they actually face the real problem (that being people developments on floodplains which incidentally includes the structures, etc., this EIS says are solutions) and suggest the real solution and I quote "An alternative emergency watershed protection program could be the use of floodplain zoning, flood insurance, flooplain studies to delineate problem area, public purchase of areas subject to flooding, flood proofing, moving of endangered buildings and land treatment measures." This approach is the only way the real problem will be solved, all other actions presented are not solutions.

I have the following direct comments on the EIS:

1. Page 15, paragraph 2. "Use of vegetative cover supplemented by mechanical protection such as rock rip-rap, gabions, cribbing or piling will reduce the source of direct sedimentation (1, 14, 19 & 32) and reduce the adverse impacts." Mechanical protection of streambanks will reduce sedimentation from the exact area they are placed but normally these structures divert water across the channel causing accelerated erosion on the opposite bank. In actuality, the net effect may be more sedimentation. For example, a brushy, irregular bank creates more friction to flowing water than does an evenly rounded rock rip-rapped bank. So, rock rip-rapping may result in water flowing faster and therefore causing greater downstream bank and channel erosion. Nowhere in this EIS was this concept even considered.

2. Page 15, paragraph 3. "Establishment of vegetative cover restores habitat conditions in the post-disaster environment where none existed. Normally, mechanical streambank protection is used in short reaches around

sharp curves or where excessive stream gradient occurs. Most streambank stabilization utilizes vegetative plantings. Therefore, a net gain is expected in beneficial wildlife habitat." It is very, very rare in Montana when mechanical streambank stabilization by the SCS is accompanied by vegetative plantings or even fencing from livestock so the native vegetation can re-establish. Also, mechanical streambank stabilization with vegetative plantings may be beneficial for wildlife habitat but is detrimental to fish habitat. Considering fish habitat, a natural, brushy, undercut bank is much better than any mechanical stabilizer.

3. Page 15, paragraph 4. "The increased turbidity created during installation of emergency measures is expected to be minor when compared to increased turbidity created by a flood event if it should occur before recovery of the post-disaster environment." During a flood, because of increased discharge, the capacity to carry sediment is greater and because of velocity, etc., probably carries most small sediment particles in suspension. This versus the situation at lower flows when emergency measures will probably be installed. During these flows, small sediment particles may not be carried in suspension and will settle onto the stream bottom. This may be more detrimental, for example, to incubating trout eggs than is the heavy sediment loads during floods.

4. Page 17, paragraph 1. "Downstream flooding may be increased as floodwater is conveyed through cleared channels faster, thus allowing fewer opportunities for storage on the natural floodplain (1 and 32). The downstream flooding might be increased relative to the post-disaster environmental condition. However, the relationship of upstream flooding and downstream flooding would be essentially reinstated to the pre-disaster environmental condition." It is readily admitted that channel clearing allows the water to flow faster. If the water flows faster, it will cause more bank and channel erosion and stream sedimentation. Since controlling sediment seems to be of prime environmental importance in justifying these measures, shouldn't those that cause additional sedimentation be pointed out as having an environmental impact?

5. Page 19, paragraph 11. "Streambank wildlife habitat may be degraded when emergency channel clearing, streambank stabilization, dikes or other similar measures are installed." This may be should be changed to "will be".

6. Page 19, paragraph 12. Same comment as for paragraph 11.

7. Page 19, paragraph 13. Same comment as for paragraph 11.

8. Page 20, paragraph 1. "In some cases, removal of sediment and debris from clogged stream may cause increased flooding in reaches immediately downstream from the work." If you have increased flooding, you are also going to have increased erosion and sedimentation.

9. Page 20, paragraph 2. "Floodplain land use changes may be induced and loss of bottomland forest may occur due to construction and access routes causing possible adverse effects on fish and wildlife habitat." Is there any doubt that if floodplain land use becomes more intensive and if bottomland forests are lost that there will not be an adverse effect on fish and wildlife habitat? The work "possible" should be removed from this paragraph.

Page 21, paragraph 5. "Fish habitat in the impaired watershed and in downstream reaches will be of reduced value." At least in Montana a "no program" approach following a flood would be much less detrimental to fish habitat than would the mechanical measures such as rip-rapping, channel clearance, etc. In my opinion, the statement of fish habitat being reduced is wrong.

This concludes my comments on this E.I.S. A further recommendation we should make is that whenever easements are obtained and public monies spent on these type projects, access for recreational purposes should be maintained in that area for the public.

DB:plj

ENVIRONMENTAL IMPACT STATEMENT ASSESSMENT FORM

Request for Environmental Impact Statement Review

TO: Ole Weland

FROM: Montana State Clearinghouse
Office of Budget and Program Planning
Room 221, Capitol Building
Helena, Montana 59601

Environmental Impact Statement Title: Emergency Waterhsed Protection Program

Clearinghouse File No: EIS 49

EIS Agency Sponsor: Department of Agriculture

PLEASE RETURN ASSESSMENT FORM PRIOR TO: June 14, 1974

Because of your Agency's particular expertise, your attention is directed to the following:

The enclosed EIS is referred to you for review and comment. Please evaluate the EIS for its consistency and fullfillment of statewide and local objectives re:

1. The environmental impact of the proposed action.
2. Any adverse environmental effects which cannot be avoided should the proposal be implemented.
3. Alternatives to the proposed action.
4. The relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity.
5. Any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented.

Please indicate in the block below your overall conclusion of the draft statement and provide comments in the space below. PLEASE RETURN THIS MEMO TO THE STATE CLEARINGHOUSE INDICATING YOUR COMMENTS. . .

(X) Favorable (explain below)

( ) Can attend public hearing (if applicable)

( ) Unfavorable (explain below)

COMMENTS: (use reverse side or additional sheet if needed)

I have not seen the draft of the environmental statement for the Emergency Watershed Protection Program. However, I am acquainted with the practices and very much concur that they are beneficial to man and his environment.

Reviewer's Signature: O. W. Weland Date: 6-13-74

Title Soil Conservation Bureau Chief, DNRC Telephone: 449-2608

ENVIRONMENTAL IMPACT STATEMENT ASSESSMENT FORM

Request for Environmental Impact Statement Review

TO: D. Williams

FROM: Montana State Clearinghouse
Office of Budget and Program Planning
Room 221, Capitol Building
Helena, Montana 59601

Environmental Impact Statement Title: Emergency Waterhsed Protection Program

Clearinghouse File No: EIS 49

EIS Agency Sponsor: Department of Agriculture

PLEASE RETURN ASSESSMENT FORM PRIOR TO: June 14, 1974

Because of your Agency's particular expertise, your attention is directed to the following: _____

The enclosed EIS is referred to you for review and comment. Please evaluate the EIS for its consistency and fullfillment of statewide and local objectives re:

1. The environmental impact of the proposed action.
2. Any adverse environmental effects which cannot be avoided should the proposal be implemented.
3. Alternatives to the proposed action.
4. The relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity.
5. Any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented.

Please indicate in the block below your overall conclusion of the draft statement and provide comments in the space below. PLEASE RETURN THIS MEMO TO THE STATE CLEARINGHOUSE INDICATING YOUR COMMENTS. . .

(XX) Favorable (explain below)

( ) Can attend public hearing (if applicable)

( ) Unfavorable (explain below)

COMMENTS: (use reverse side or additional sheet if needed)
The benefits to be derived from the above subject program cannot be denied. As indicated in the environmental impact statement, however, these benefits cannot be realized without some short term environmental degradation. Whenever action is taken under this program, an effort must be made to minimize adverse environmental effects.

The following statements are included in the general water quality criteria section of the Montana Water Quality Standards (MAC 16-2.14(10)-S14480):

(g) No wastes are to be discharged and no activities conducted which, either alone or in combination with other wastes or activities, will cause turbidities to exceed those allowed by specific water quality criteria; provided short-term activities necessary to accommodate essential dredging, channel or bank alterations, stream diversions or other construction where turbidities in excess of the criteria are unavoidable, may be authorized by the Department under

Reviewer's Signature: Steven L. Tichacek Date: 6/12/74

Title Agricultural Wastewater Specialist Telephone: 449-2407

(continued)

conditions as it may prescribe.

(o) Pollution resulting from storm drainage, storm sewer discharges and non point sources, including irrigation practices, road building, construction, logging practices, overgrazing and other practices, are to be eliminated or minimized as ordered by the Department.

The activities proposed under this program would be required to comply with the above sections as well as any other portion of the Water Quality Standards which might be applicable.

STATE OF NEVADA
OFFICE OF THE STATE PLANNING COORDINATOR
CAPITOL COMPLEX
CARSON CITY, NEVADA 89701
(702) 885-4865

July 12, 1974

Mr. Kenneth E. Grant
Administrator
United States Department of Agriculture
Soil Conservation Service
Washington, D.C. 20250

Dear Mr. Grant:

Thank you for the opportunity for clearinghouse review of the project Emergency Watershed Protection Program.

During the review there were no comments, conflicts or suggestions for improvement on the above mentioned draft.

Sincerely yours,

Bruce D. Arkell

BDA:bw

STATE OF NEW HAMPSHIRE
FISH AND GAME DEPARTMENT
34 BRIDGE STREET
CONCORD, N.H. 03301

BERNARD W. CORSON
DIRECTOR

June 14, 1974

Kenneth E. Grant, Administrator
Soil Conservation Service
Washington, D. C. 20250

Dear Mr. Grant:

This department concurs with the U. S. Soil Conservation Service Draft Environmental Impact Statement - Emergency Watershed Protection Program, authorized by Section 216 of the Flood Control Act of 1950, Public Law 81-516 (33 USC 701b-1). Adverse impact will be reduced as a result of erosion control of damaged stream banks and adverse impacts will result from debris channel clearance.

However, listed below are a few suggestions which should be considered while evaluating and/or implementing the Emergency Watershed Protection Program:

1) Any effort at watershed protection should first be directed towards flood plain zoning. This method would result in a great savings of all concerned and would reduce possible adverse effects from stream clearance because in some instances it would not be needed if life and property were not imminently threatened.

2) Careful evaluation should be made of each project in determining justification. If it cannot be solidly justified, then it should not be carried out.

3) Erosion control should be encouraged before and after emergencies.

4) Coordination between the U. S. Soil Conservation Service and state and federal fish and wildlife agencies is a must.

5) On site instruction and coordination of stream clearance work is a must to minimize dislocation of wildlife habitat and natural stream damage

This program is only as good as its administrative agency. Any lack of communication on their part and some segment of society suffers, whether it be sportsmen, taxpayer or property owner.

Sincerely yours,

Bernard W. Corson
Director

BWC/sm

State of New Jersey
DEPARTMENT OF COMMUNITY AFFAIRS

PATRICIA Q. SHEEHAN
COMMISSIONER

October 1, 1974

363 WEST STATE STREET
POST OFFICE BOX 2768
TRENTON, N.J. 08625

Mr. Chester F. Bellard
State Conservation
1370 Hamilton Avenue
PO Box 219
Somerset, New Jersey 08873

Dear Mr. Bellard:

In accordance with the U. S. Office of Management and Budget Circular A-95 Revised, your Environmental Impact Statement for the Emergency Watershed Protection Program designated application #OSRC-FY-74-435, has met the State of New Jersey's clearinghouse requirements.

We have circulated this Project Notification to the appropriate State agencies, none of which have voiced any objections.

Very truly yours,

Sidney L. Willis DNH.

Sidney L. Willis
State Review Coordinator
Division of State and
Regional Planning

SLW:lf

STATE OF NEW MEXICO

STATE PLANNING OFFICE

EXECUTIVE — LEGISLATIVE BUILDING
SANTA FE

DAVID W. KING
STATE PLANNING OFFICER

BRUCE KING
GOVERNOR

LEO GRIEGO
DEPUTY STATE PLANNING OFFICER

May 8, 1974

Mr. Kenneth E. Grant, Administrator
Soil Conservation Service
U.S. Department of Agriculture
Washington, D. C. 20250

Dear Mr. Grant:

Thank you for the opportunity to review the Draft Environmental Statement on the Emergency Watershed Protection Program. Because of the emergency nature of such a program, this Office would emphasize that state environmental natural resources, fish and game, and other agencies be assured of the opportunity to participate in planning and coordination of emergency work in the State of New Mexico.

Sincerely,

David W. King

David W. King
State Planning Officer

DWK:dg

STATE OF NEW MEXICO

STATE ENGINEER OFFICE

SANTA FE

S. E. REYNOLDS
STATE ENGINEER

Bataan Memorial Building
STATE CAPITOL
SANTA FE, NEW MEXICO 87501

May 20, 1974

Mr. Kenneth E. Grant, Administrator
Soil Conservation Service
South Building
Washington, D. C. 20250

Dear Mr. Grant:

Mr. Marion E. Strong, State Conservationist for New Mexico, requested review and comments on "Draft Environmental Impact Statement" for the Emergency Watershed Protection Program authorized by the Flood Control Act of 1950. I appreciate the opportunity to comment on the draft document.

The Environmental Impact Statement does not address itself directly to effects on grazing land. As you know, over 80 percent of the land in New Mexico is utilized for grazing of livestock, and livestock production is the major source of agriculture income of the state. Most livestock enterprises, both large and small, rely heavily upon rangeland for development of economical operations. Disastrous events such as fires or erosion that reduce the grazing capacity of rangeland could result in considerable financial loss to private owners and the state. Therefore, it seems appropriate that the beneficial effects of re-establishing vegetative cover suitable for grazing following a disastrous event should be discussed and should be listed in the "Summary of favorable environmental effects" on page 19.

Sincerely,

S. E. Reynolds
State Engineer

SER:pat
cc: Mr. Marion E. Strong

Natural Resource Conservation Commission
of New Mexico

321 W. SAN FRANCISCO

PHONE (505) 827-5380
827-5389

SANTA FE, NEW MEXICO 87501

July 2, 1974

Mr. Kenneth E. Grant
Administrator
Soil Conservation Service
U.S. Department of Agriculture
South Building
Washington, D. C. 20250

Dear Mr. Grant:

Following are my comments in reference to the Draft Environmental Impact Statement for the Emergency Watershed Protection Program:

Section 1a, page 4, paragraph 3

The establishment of vegetative cover is a significant measure for erosion and sedimentation control and accelerated runoff. However, in arid regions of the Southwest, re-establishment of vegetation is, at best, difficult. In these areas, alternative measures should be considered.

Thank you for the opportunity to respond.

Sincerely,

Thomas B. Keyse

THOMAS B. KEYSE
Executive Secretary

TBK/jk

STATE OF NEW YORK
DEPARTMENT OF AGRICULTURE AND MARKETS
ALBANY

FRANK WALKLEY
COMMISSIONER

May 28, 1974

Mr. Kenneth E. Grant
Administrator
Soil Conservation Service
Washington, D.C.

Dear Mr. Grant:

We have reviewed the SCS report entitled " Draft Environmental Impact Statement" and agree with its content. This appears to be a workable program and accurately represents the problem and what can occur if the proper conservation measures are not instituted promptly.

We feel such a program would have far-reaching beneficial effects and has our support.

Sincerely,

Frank Walkley

Frank Walkley

fw:ms
cc: Commissioner Day

JUN 3 1974

RONALD W. PEDERSEN
FIRST DEPUTY COMMISSIONER

STATE OF NEW YORK
DEPARTMENT OF
ENVIRONMENTAL CONSERVATION
ALBANY

June 10, 1974

Dear Mr. Grant:

Draft Environmental Impact Statement
Emergency Watershed Protection Program
USDA-SCS-ES-FP-(ADM)-74-1-D
DEC Project No. 000-112

We have completed our review of the subject document and have enclosed our comments.

In summary, we believe that the draft statement emphasizes the need to protect portions of flood plains experiencing development. Therefore, the program appears to encourage development within flood plains. This is contrary to both Federal and State flood plain management programs. An approach which is more consistent with reducing flood losses would be to protect existing development to the greatest extent possible and discouraging all new development.

We have found the Emergency Watershed Protection Program to be extremely useful in reducing adverse environmental impacts during the post-disaster period. Furthermore, this program complements other Federal disaster relief programs by providing financial assistance for emergency measures not included in other programs.

Thank you for the opportunity to review this statement.

Sincerely,

Ronald Pedersen

Enclosures

Mr. Kenneth E. Grant, Administrator
U. S. Department of Agriculture
Soil Conservation Service
Washington, D. C. 20250

COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT
EMERGENCY WATERSHED PROTECTION PROGRAM

1. Page 5, Section 1c - This section and others throughout the report imply that flooding denudes a watershed in a fashion similar to fire, landslides or other such phenomenon. However, at least in New York, floods do not strip away stream channel vegetation except in localized areas. Flooding is a natural event to which an unaltered stream and its associated vegetation within the flood plain is adapted.

2. Page 6, paragraph 3 - Channelization as used by the A. D. Little Report refers to man-made alterations of stream channels. Channelization was not, as implied, considered to be natural phenomenon resulting from natural disasters. However, this discussion does present several good reasons why stream work and rechannelization should be either avoided or held to an absolute minimum.

3. Page 20, paragraph 5 - This paragraph implies that the emergency watershed protection program is needed to maintain and encourage agricultural production and intensive development in flood plains. The use of flood plains for agricultural purposes is acceptable providing that periodical crop losses are not prohibitive. However, encouraging more intensive development within flood plains is contrary to both Federal and State programs. Furthermore, encouraging such development by providing minimal flood protection will only create a condition which results in catastrophic losses from severe floods. Instead, the program should protect existing development and discourage all new development in areas subject to flood hazards.

4. Page 22, Sections 5b and 5c discusses structural and non-structural measures, respectively, as two distinct alternatives. However, a complete flood protection and prevention program should include a combination of both of these measures.

5. Page 23, paragraph 3 - This paragraph implies that land use changes and flood plain management would have more severe human impacts than the complete program described in Section 5b. On the contrary, restricting development on flood plains would ultimately reduce hardships imposed on society, particularly from catastrophic floods which exceed the design limits of protective works. Furthermore, restricting the use of flood plains is completely compatible with both the National Flood Insurance Program and the Federal Flood Disaster Protection Act of 1973.

6. Pages 23 and 24 - The remainder of this argument against flood plain management assumes no action by other Federal, State of local agencies. However, past experience during recent floods has shown that all of these agencies take action to remove stream constrictions and stabilize the erosion of critical areas. The Emergency Watershed Protection Program, which has proven to be a beneficial program, complements the restoration programs of other Federal and State agencies. Furthermore, the adoption of land use changes and flood plain management would not completely eliminate the need for such a program.

New York State Soil and Water Conservation Committee
NEW YORK STATE COLLEGE OF AGRICULTURE AND LIFE SCIENCES
A STATUTORY COLLEGE OF THE STATE UNIVERSITY

Cornell University
142 Emerson Hall
Ithaca, New York 14850
Telephone: 607-256-4420

June 10, 1974

Mr. Kenneth E. Grant
Administrator
Soil Conservation Service
Washington, D.C. 20250

Dear Mr. Grant:

Enclosed are comments on Draft of Environmental Impact Statement for the Emergency Watershed Protection Program Authorized by Section 216 of the Flood Control Act of 1950.

Very truly yours,

Stewart K. Wright

Stewart K. Wright
Assistant Executive Secretary

SKW/des
Enclosures

COMMENTS ON ENVIRONMENTAL IMPACT STATEMENT ON EMERGENCY WATERSHED PROTECTION PROGRAM AUTHORIZED BY SECTION 216 OF THE FLOOD CONTROL ACT OF 1950, MARCH 1974.

In 1972 and 1973, New York State Soil Conservation Service received over $6,000,000 in funds to use in stream restoration and stabilization, as a result of Hurricane Agnes and other storms. These monies in New York State were used in cooperation with over 180 units of local government.

New York State has experienced four major floods during the past two years starting with Hurricane Doria late in the summer of 1971, Hurricane Agnes in 1972 and a storm affecting several counties in June of 1973. In this two year period, forty-three counties or 59% of land area of the state has suffered disastrous flooding with eight counties being ravaged more than once during this period. About 87% of New York citizens reside in the counties designated as disaster areas. Damages from Agnes alone total about $700,000.

With these facts in mind, it must be emphasized that there is a continuing need for such emergency measures that will allow for stream bank protection, debris and sediment removal from channels and stream bank stabilization. These funds, coupled with an on-going preventative program, are essential in New York State to protect property and safeguard lives and to maintain environmental quality.

A. There is need for improved field coordination of emergency stream clean-up procedures. There are two phases of activity which must be recognized. The first phase involves that of emergency restoration and protection of life and health. This often involves cleaning out stream debris near bridges, communities and other critical locations. This is normally implemented with little time permitted for coordination and planning.

The second phase of stream emergency clearance involves a longer range effort which allows time for more effective coordination and planning. In this case, there is a critical need for coordination, especially between the Corps of Engineers and the Soil Conservation Service. There is also a potential for many benefits to be arrived at by providing a role for local government, especially the Soil and Water Conservation Districts. The districts in this case could set priorities, obtain easements, provide for coordination and cooperative efforts by local governmental units, utilizing local manpower and equipment of towns, villages and cities.

Above all, there is a need for participation by SCS, along with other state and federal agencies in a coordination program. This means participation in the emergency disaster centers where coordination could most effectively be carried out during initial emergency efforts. If the disaster center continues, then it could serve as a focal point for coordination during longer range clean-up procedures. Coordination at the field level needs to be improved.

B. Evaluation of Alternatives

Section 5 of the report evaluates the impact of various alternatives. There are serious limitations to evaluation of alternatives when a

single alternative approach is utilized. There is a need for a more flexible approach to solving flood problems, as well as emergency watershed and stream protection efforts. Therefore, a suggested alternative is a mix of three of the previously mentioned alternatives; that of (1)PL566 Small Watershed Projects; (2)the Emergency Downstream Clean-Up Programs at critical locations and (3)Flood Plain Management. A combination or a mix of these three alternatives would be effective in both reducing long range flood problems and choosing locations and priorities for emergency clean-up efforts.

A stronger, more comprehensive role for local decision making and selecting the mix of these three alternatives is needed. An organizational procedure, including the Soil and Water Conservation District, watershed associations if there are any, county and town planning boards and local governmental units should be established to arrive at the most economical, socially acceptable, environmentally productive mix of the above solution programs.

C. There is a need for more flexible inter-agency approaches. These should be established in two phases; one during initial high priority emergency situations and the second during longer range programs with less priority and less emergency. A procedure should be established for allocating responsibility and decision making during these different time periods. A procedure should be established for coordination with state, county and local government.

During the past two years, an acceptable procedure of coordination between the Soil Conservation Service and the New York State Department of Environmental Conservation on environmental impacts, on fish and wildlife, of stream clearance has been utilized. There is need, however, for more local governmental participation.

Therefore, a planning procedure is recommended that can be carried out prior to emergency situations. State and local wildlife agencies and interests should classify stream reaches into the following categories:

(a) designate areas of critical wildlife concern for protection

(b) areas where fish and wildlife enhancement is needed

(c) areas where no concern or low priority enhancement exists for fish and wildlife

Then a review procedure should be established where technical evaluations, exchange of information and decisions can be reached which consider the different categories of geographical areas prior to disaster situations. Local governmental participation should be encouraged in this planning and decision making process.

Following a flood situation or disaster, different criteria should be utilized. For example, during the initial emergency period high priority should be placed on measures designed to provide for safety and protection of property. During the longer range period, there should be a balance

between economic, social and environmental interests, allowing for participation in decisions through a multi-level governmental task force.

D. There should be a procedure established which provides for pre-disaster planning and which provides funds and organizational procedures for strengthening this pre-disaster planning. This process should involve a mix of alternatives as previously listed, with a planned program of local participation, which establishes procedures that can be utilized once a disaster occurs. This should strengthen the effectiveness of the alternatives as mentioned previously. For example, you might find that one area is highly suitable for a PL 566 project with minimum downstream channel improvements necessary. Another area might be sufficient to place heavy emphasis on flood plain management, relocation and flood proofing. These should be established through a process of inter-agency, inter-discipline study and local participation.

In conclusion, it is felt that emergency Watershed Protection Authorized by Section 216 of the Flood Control Act of 1950 should be continued. There should be increased emphasis placed on planning and coordination prior to disaster situations. Amendments to this program, or changes in other programs, should encourage increased cost sharing at local, state and national levels to stimulate preventative programs. Coordination and planning should be strengthened providing for increased participation of local government.

A more flexible approach, using a combination of methods, should be investigated, providing for a mix of alternative programs and cost sharing or funding provisions.

Stewart K. Wright
June 10, 1974

State of North Carolina

Department of Administration
Raleigh, North Carolina 27603

James E. Holshouser
Governor

William L. Bondurant
Secretary

Office of Intergovernmental Relations

Edwin Deckard
Director

919-829-2594

June 12, 1974

Mr. Kenneth E. Grant, Administrator
Soil Conservation Service
Washington, D. C. 20250

Dear Mr. Grant:

Re: Draft Environmental Statement, Emergency Watershed Protection Program Authorized by Section 216 of the Flood Control Act of 1950, USDA-SCS-ES-FP-(ADM)-74-1-D

Copies of the subject draft environmental statement, transmitted to this office by your letter of May 6, 1974, were referred for review and comment to the following agencies:

N. C. Department of Natural and Economic Resources
N. C. Department of Human Resources, Division of Health Services
N. C. Department of Agriculture, Controller's Office

We are enclosing for your use the comments of the three State-agencies listed above.

We request that you furnish us one (1) copy of your final environmental statement on this proposed project.

Sincerely yours,

Karl N. Stauber

Karl N. Stauber, Chief
Monitoring, Analysis, and Review Section

KNS:c

cc: Mr. Jesse L. Hicks

Enclosures

STATE OF NORTH CAROLINA
DEPARTMENT OF NATURAL AND ECONOMIC RESOURCES
Box 27687 Raleigh 27611

JAMES E. HARRINGTON
SECRETARY
TELEPHONE
AREA CODE 919-829-4984

JAMES E. HOLSHOUSER
GOVERNOR

June 7, 1974

MEMORANDUM

TO: Carl Stauber

FROM: Art Cooper

SUBJECT: Draft Environmental Impact Statement, Emergency Watershed Protection Program, USDA; File No. 045-74

The N.C. Department of Natural and Economic Resources has reviewed the subject document. Overall, the statement seems to be quite thorough and complete. Our only comments are concerning the section on alternatives and their relationship to what appears to be a policy question.

Alternative (5c), Land Use Changes and Flood Plain Management Measures, should be better identified as a preventive measure as opposed to a post-disaster action such as alternatives (5b) and (5e). As such, there would be additional benefit attributed to this action, because an initial disaster would not occur. By mixing disaster prevention and post-disaster treatment alternatives, the S.C.S. opens the door to an overall policy question; Should a disaster be prevented prior to its occurrence or rectified after its occureence? This question is not discussed in any detail in the statement.

All of the specific land use changes and flood plain measures are generally ineffective after the disaster has occurred. By considering land use related activities as a post-disaster alternative, it would appear that the authors

do not view themselves as having any future responsibility along these lines, at least as they relate to the expenditures of Emergency Watershed Protection funds. The result tends to be an evasion of the land use question and the alternatives seem to be used to justify the subject program only.

There are several statements in section (5c), pages 23 and 24 which deserve response:

Statement	Response
"Land Use Changes and Flood Plain Management would have severe human environmental impacts."	There must be land use changes and flood plain management or there will undoubtedly be severe human environmental impacts.
"Developed areas would be restricted from future growth thus imposing economic hardship on the existing resident."	Unless developed areas endangered by flooding or restricted from future growth, a future economic hardship will be places on the tax payer, as he is called upon for emergency watershed protection.
"Many floodplain residents would be required to relocate in areas not proned to flooding."	This is obviously impossible at present as a public policy. A great deal of future emergency watershed protection money would be saved if proper land use measures simply restricted residents from locating in areas proned to flooding. There may even be justification for allowing commercial and industrial enterprises to take their chances in the flood plain (as long as they know they are not going to receive future public help) while the unsuspecting home buyer is rigidly protected from flood damage by the prohibition of residential construction in the flood plain. Not only would this answer the "taking without due process" question (since industrial and commercial land uses are more valuable than residential), but it is probable that skyrocketing insurance rates for those industrial and commercial activities that do choose to locate in the flood plain would soon take

	care of the problem together.
"Many buildings would be of reduced usefulness as dikes or water-tight seals would limit opening and sizes of entrance."	Probably irrelevant.
"Cost of providing land use changes and flood plain management aspects would increase several times the amount used for the existing emergency water shed protection program."	Without some land use control and treatment prevention, EWPP funding will become totally inadequate or will have to increase astronomically in the coming years.
"Adoption of land use changes and flood plain management would require adoption of a whole new set of social values as well as authorization."	Any and all land use control programs require this.

In summary, this agency feels that the Emergency Watershed Protection Program is a great benefit to the State of North Carolina and the nation; however, it is felt that such a program of remedial action should be but an element in an overall program for prevention of and relief from flooding disasters. A commitment by the U.S.D.A. to an extensive program of land use control and treatment run in conjunction with the E.W.P.P. will reduce future funding for the E.W.P.P. in the

AWC:eb

STATE OF NORTH CAROLINA

DEPARTMENT OF HUMAN RESOURCES

Division of Health Services

JAMES E. HOLSHOUSER, JR.
GOVERNOR

DAVID T. FLAHERTY
SECRETARY

JACOB KOOMEN, M.D., M.P.H.
DIRECTOR

P. O. Box 2091 Raleigh 27602

May 17, 1974

Mr. Randolph Hendricks
Review Supervisor
Office of Intergovernmental Relations
Department of Administration
Raleigh, N. C. 27603

Re: File No. 045-74 Draft Environmental Statement, Emergency Watershed Protection Program

Dear Mr. Hendricks:

This draft environmental statement has been prepared under the authority granted by the Flood Control Act of May 1950 for the purpose of implementing emergency measures for the protection of watershed areas damaged by floods, fire, or other natural elements or forces. These emergency measures are designed to retard run-off and prevent soil erosion that will cause siltation problems in streams and reservoirs.

We encourage the development of this emergency program since it will provide increased protection to the surface water reservoirs that have been developed or will be developed.

Very truly yours,

James F. Stamey

James F. Stamey
Assistant Chief
Sanitary Engineering Section

SHU/ct
cc: Mr. Gene Barrett

JOHN L. REITZEL
DEPUTY COMMISSIONER
ALEX M. LEWIS
OFFICE OF FISCAL MANAGEMENT
WILLIAM G. PARHAM, JR.
OFFICE OF AGRI-BUSINESS
WILLIAM A. WILDER, JR.
OFFICE OF CONSUMER SERVICES

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F. CARLYLE TEAGUE, SECRETARY &
DIRECTOR OF PUBLICATIONS

NORTH CAROLINA
DEPARTMENT OF AGRICULTURE
RALEIGH, N. C. 27611



JAMES A. GRAHAM
COMMISSIONER OF AGRICULTURE

May 14, 1974

OFFICE OF FISCAL MANAGEMENT
ADMINISTRATIVE SERVICES—ALEX M. LEWIS
N. C. FARMER'S MARKET—CHARLES G. MURRAY
N. C. RURAL REHABILITATION CORP.
N. C. STATE FAIR—ARTHUR K. PITZER

OFFICE OF AGRI-BUSINESS
FOOD DISTRIBUTION—JAY P. DAVIS, JR.
MARKETS—CURTIS F. TARLETON
MUSEUM—WILLIAM L. HAMNETT
RESEARCH STATIONS—PATON H. KELLEY
SOIL TESTING—DR. DONALD W. EADDY
STATISTICS—RUSSELL P. HANDY
WAREHOUSE—MELVIN H. HEARN

OFFICE OF CONSUMER SERVICES
ANALYTICAL—DR. WILLIAM Y. COBB
DAIRY—LEONARD F. BLANTON
ENTOMOLOGY—ALFRED S. ELDER
SEED TESTING—GEORGE E. SPAIN
STRUCTURAL PEST CONTROL—RUDOLPH E. HOWELL
VETERINARY—DR. T. F. ZWEIGART
WEIGHTS & MEASURES—JOHN I. MOORE

M E M O R A N D U M:

TO: Mr. Randolph Hendricks, Review Supervisor
Office of Intergovernmental Relations

FROM: Alex M. Lewis, Jr.
Controller

SUBJECT: Draft Environmental Statement, Emergency Watershed Protection Program Authorized by Section 216 of the Flood Control Act of 1950, USDA Soil Conservation Service, File No. 045-74

The above referred to Emergency Watershed Protection Program has been circulated through the Department and it has been found to be quite adequate for the proposed purpose.

NORTH DAKOTA STATE PLANNING DIVISION

STATE CAPITOL—FOURTH FLOOR—BISMARCK, NORTH DAKOTA 58501
701 224-2818

June 7, 1974

STATE INTERGOVERNMENTAL CLEARINGHOUSE "LETTER OF COMMENT"
ON PROJECT REVIEW IN CONFORMANCE WITH OMB CIRCULAR NO. A-95

TO: USDA, Soil Conservation Service
STATE CLEARINGHOUSE PROJECT NUMBER: 7404229191

Mr. Kenneth E. Grant, Administrator
U. S. Department of Agriculture
Soil Conservation Service
Washington, D. C. 20250

Dear Mr. Grant:

Subject: Draft Environmental Impact Statement for the Emergency Watershed Protection Program authorized by Section 216 of the Flood Control Act of 1950, Public Law 81-516 (33 USC 701b-1). USDA-SCS-ES-FP-(ADM)-74-1-D.

This draft EIS was received in our office on April 22, 1974.

In the process of the A-95 review, the attached comment was received from the North Dakota Wildlife Federation.

This document and attachment constitute the comment of the State Intergovernmental Clearinghouse, made in compliance with OMB Circular No. A-95.

Sincerely yours,

Bonnie E Austin

Miss Bonnie E. Austin
Associate Planner

BEA:cs

Attachment

NDSIC FORM B (9/71)

PNRS NO.

Date Received

FROM: STATE INTERGOVERNMENTAL CLEARINGHOUSE
STATE PLANNING DIVISION
STATE CAPITOL
BISMARCK, NORTH DAKOTA 58501

ENVIRONMENTAL IMPACT STATEMENT TO BE REVIEWED

TO: Mr. Konrad Norstog

N. Dak. Wildlife Federation

Bismarck

ISSUED BY: U. S. Department of Agriculture

DATE: May 6, 1974

NAME OF PROJECT: Emergency Watershed Protection Program

The attached Environmental Impact Statement is referred to your agency for review and possible comments. If you consider it satisfactory, please check the box labeled, "no comment." Otherwise, please check one of the other appropriate boxes. Your cooperation is asked in completing this memo and returning it to the State Intergovernmental Clearinghouse within 10 days from date of receipt. If no response is received within 15 days of date of notification it will be assumed you have no comment.

☐ No comment

☐ Meeting desired with applicant

☒ Comments submitted herewith

. . . . . .

1. Specific comments which are to be attached to the review statement which will be submitted by the State Intergovernmental Clearinghouse: (Use reverse side or separate sheets if necessary)
   attached

2. Reasons why meeting is desired with applicant:

Reviewer's Signature: Henry M. Byorum
Chairman Water Resources Committee
for

Date:

Title: PRESIDENT, NORTH DAKOTA WILDLIFE FEDERATION, INC.

Tele: 701-842-3460

COPY FURNISHED: OVER

North Dakota Wildlife Federation, Inc.

Publishers of FLICKERTALES
North Dakota's Leading Enviromental Publication

200 West Main, Suite 9
P. O. Box 1694
Bismarck, North Dakota 58501

Phone 223-8741

20 May 1974

COMMENTS ON EMERGENCY WATERSHED PROTECTION PROGRAM DRAFT ENVIRONMENTAL IMPACT STATEMENT OF MARCH 1974, PREPARED BY US DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE, WASHINGTON, D. C. 20250. USDA-SCS-ES-FP-(ADM)-74-1-D

We believe a much clearer definition will be needed for North Dakota in what constitutes a natural "disaster" and "emergency". We don't have forest fires in North Dakota, for example, which denude large areas of protective vegetation. Quite conversely, prairie fires tend to stimulate the prairie vegetation and thus improve soil-sediment holding capacities.

Basically, our main concern in North Dakota with respect to disasters and proposed post-disaster remedies under this program relates primarily to the definition of flooding and "sudden impairment' of a watershed. We believe a much clearer definition and justification is needed with respect to what constitutes flooding and what the emergency measures will be in North Dakota. Standing surface waters, for example, are historical in North Dakota and represent a tremendous wetland resource. These waters, obviously, should not be considered an "emergency" problem and therefore should not qualify under this program. Additionally, our flood plain forests are dependent on historic flooding to maintain and nourish these unique vegetative types. Certainly, flooding in a flood plain is not an emergency, but a natural event predating agriculture in the state.

With respect to the diagram on page 2 of the DEIS, how are pre-disaster conditions to be determined? Again, flooding may be the natural pre-disaster condition with or without a "disaster". Some criteria for a disaster and for pre-disaster conditions of the environment must therefore be established, particularly when this program is"...not to solve watershed problems that existed prior to the natural disaster". (Appendix B, page 2).

We take special note that a large part of the justification for this Emergency Watershed Protection Program is attributed to the adverse effects of silt and sediment to fish and wildlife resources. We believe that some of the solutions proposed in the DEIS could be as damaging to these resources as the "disaster" itself. We believe, therefore, that the North Dakota State Game & Fish Department is in the best position to determine these adverse impacts of a disaster and the proposed solutions. We recommend that the "Department" be involved as a member of the team on all investigations and provide their formal approval and recommendations in all Emergency Watershed Protection measures to be submitted to the Administrator (SCS). Explanations should be provided by the SCS and the Flood Disaster Assistance Administration offices for all recommendations which are not followed.

We donot believe that a significant amount of additional land for agricultural products will be needed in North Dakota, at the expense of wildlife, if these "disasters" are not treated by the Emergency Watershed Protection Program. At a minimum, this justification should be compared with statements by Secretary Butz to "plow up the fencerows" for agriculture production under normal conditions.

COMMENTS ON EMERGENCY WATERSHED PROTECTION PROGRAM EIS, PREPARED BY USDA, N.D.W.L.F. dated 20 May 1974.

Rather we believe that land use changes and floodplain management measures (Alternates 5c & 5e) should be implemented to provide long-term, less expensive (life and property) solutions to flooding and which will inspire and encourage man to live more in harmony with nature. There no doubt are exceptions to such an approach especially on a short term basis and dictated by the economic facts of life. However where feasable these alternatives (5c & 5e) should be the objectives whenever possible. Under no circumstances should this program become an excuse for implementaion of extensive stream channelization and wetland drainage projects as currently practiced by SCS under PL 566. Under provisions of para 5d (Increased funding of the existing program) it is conceivable that such an interpretation can eventually be the result of such an increase.

The North Dakota Wildlife Federation would like to be invited to be a member of the investigation team for all emergency watershed protection projects (Appendix B, item B-1). Also, please place us on the mailing list for the reports by the State Conservationist to the Administrator when funds are requested for these emergency measures (Appendix B, page 4). We would like to provide our comments on each project (Appendix B, item B-7) in North Dakota, to be included in the Administrator's letter to CEQ, which constitutes a supplement to this EIS (Appendix B item C-Environment).

Thank you for the opportunity to express our views in what we consider to be a program which potentially has very damaging environmental consequences in North Dakota .

State of Ohio Environmental Protection Agency, Box 1049, 450 East Town Street, Columbus, Ohio 43216 (614) 469-3543

June 18, 1974

RE: Draft Environmental Impact Statement Emergency
Watershed Protection Program

Kenneth E. Grant, Administrator
U. S. D. A. Soil Conservation Service
Washington, D. C. 20250

OhioEPA

John J. Gilligan
Governor
Dr. Ira L. Whitman
Director

Dear Mr. Grant:

The Ohio Environmental Protection Agency has been charged, by the Governor, with lead agency and review coordination responsibilities for the State of Ohio on Federal Environmental Impact Statements. The above referenced Draft Environmental Impact Statement has been reviewed by sections of this Agency and the Ohio Department of Natural Resources. The following comments constitute those received and have been coordinated under the auspices of the State Clearinghouse.

General Comments

The intent of the proposed Emergency Watershed Protection Program; to reduce the environmental and social impact of damage to watersheds, and in particular, the aspects of the program designed to protect lives and property, are laudable. The overall program appears to be satisfactory to achieve these ends on a limited scale.

The only concern of the reviewing Agencies involves the possibility of program implementation, under other than emergency situations. This concern is somewhat assuaged by Appendix B, Watersheds Memorandum - 124 wherein it is stated: "It should be understood that emergency watershed protection is work done to safeguard lives and property in emergency situations and not to solve watershed problems that existed prior to the natural disaster." Nevertheless, the Environmental Impact Statement does not specify the minimal degree of impairment to a watershed that justifies application of the emergency protection plan. Instead, it is merely stated that implementation of the program is left to the discretion of the Secretary of Agriculture. The time frame for planning, review, and application of the project measures is not given, nor is the method by which expeditious land right acquisition will be obtained. For this reason, we request that situations and measures entailing program implementation be more clearly delineated in the Final Environmental Statement.

The establishment of a vegetative cover, use of gully-control structures, protection of streamlands, and the emergency repair of existing dams, dikes, and other water-control structures are all justifiable and acceptable measures. We are in agreement with the following favorable impacts of the proposed program:

(1) Erosion damage will be prevented by the immediate establishment of a vegetative cover. Certain soil types and landscape positions are subject to landslides when they are not protected by vegetation. Well developed root systems usually hold soil on natural slopes and remove excessive soil moisture, which would add weight and lubricate slip planes. Also, wind erosion will be reduced by a cover of vegetation.

(2) Erosion rates, losses of soil, and sedimentation in watercourses will be reduced by gully-control structures, which should be constructed as soon as gully erosion becomes apparent.

Only the removal of debris and sedimentation from channels to reduce damage from floods and to permit a more rapid recovery of the area are potentially controversial. To the extent that the debris and sediment accumulated as a result of the disaster, we agree that they should be removed in accordance with this program. However, it is imperative that specific situations in which such measures had EIS review in the past and were rejected, or would have had EIS review, not be authorized by Section 216. Thus, preventive measures should be undertaken through existing authorities and not as an aspect of this program. Otherwise, Section 216 could be used to circumvent the EIS review procedure.

Specific Comments

Several false or misleading statements are made about floodplain management in the Environmental Impact Statement:

(1) On page 23, paragraph 3, the statement is made that, as a result of floodplain regulations, developed areas would be restricted from further growth, creating economic hardships for the existing residents.

This is very misleading because floodplain regulations usually affect only a small portion of developed area and would prevent growth only in the floodway portion of the floodplain.

(2) The same paragraph claims that agricultural uses would have to be diverted to other lands. This is entirely false. Agriculture is one of the most compatible uses of floodplains.

(3) The explanation of floodplain management regulations in the discussion of alternative 5c is very misleading and should be rewritten.

In addition, the following errors and inconsistencies occur in the Statement:

(1) The quotation from the A. D. Little report states that "the vegetation on the immediate banks of a stream stabilizes the banks and prevents their slumping into the channel proper and thus increases the sediment load." We assume that "decreases"was intended not "increases."

(2) Paragraph 5, page 3 is inconsistent with paragraph 5, page 13 and with paragraph 2, page 14:

On page 3, land slips and slides are attributed to the inability of land areas devoid of vegetation to accommodate excess moisture. On the other hand, on pages 13 and 14 it is emphasized that a vegetative cover increases the infiltration of surface water and holds it within the soil. While plants do remove moisture from the ground and a vegetative cover does tend to increase infiltration and reduce runoff, it is inconsistent to suggest that the revegetation of an area will both increase and decrease the moisture content of the soil.

(3) Paragraph 1, page 6, is inconsistent with paragraphs 1, 2, and 3 on page 9:

On page 6 it is stated: "The A. D. Little report also points out that overhanging vegetation is one of the main sources of detritus material that gets into streams. All of these desirable characteristics are lost when fire, floods, or other sudden impairment of a watershed strips away streamside vegetation."

This characterization of vegetative detritus in streams as desirable is inconsistent with statements on page 9. In addition, it is stated on page 5 that the lack of streamside vegetation induces flash flooding but the A. D. Little report seems to indicate the opposite.

The A. D. Little report appears to conflict with SCS policy or philosophy--at least in Ohio, where SCS apparently views the shading and detritus provided by overhanging vegetation to be unimportant if not detrimental to channel flows.

(4) The use of the last paragraph on page 8 to justify the implementation of a program would qualify a tremendous number of Ohio streams. Such phrases as "reduced channel capacity," eroding streambanks," and "culverts filled with sediment" describe numerous "normal" streams in Ohio. Close scrutiny is imperative prior to undertakings to obviate such conditions.

(5) Would the program really decrease or prevent the urban problem, as claimed in paragraph 3, page 18?

(6) Why, on page 19, are "favorable" effects positive statements, while "adverse" effects are modified by "may"?

(7) Prevention of emigration from the floodplain itself (paragraph 8, page 19) doesn't appear to be a favorable impact.

(8) Landslide measures are inadequately discussed in paragraph 4 of page 20.

(9) What measures are taken now under the "existing program" mentioned in paragraph 2, page 21?

(10) It does not necessarily follow (paragraph 3, page 21) that population displaced from rural floodplains will migrate to urban areas. What about the rural lands that are more suited to development than floodplains?

(11) It is stated in paragraph 3, page 23, that "land use changes and floodplain management would have severe human environmental impacts". Certainly, such effects will be less harmful than being wiped out by a disastrous flood.

(12) It is not valid to compare the costs of floodplain management and land-use changes with the emergency program. These costs must be compared with the total damage costs, not just the emergency-measure costs. Also, there is nothing wrong with a "set of social values" that discourages development on the floodplain.

(13) We question the validity of preserving wildlife habitat by preventing emigration from the floodplain to the uplands because the habitat lost may be equal to that gained.

(14) The last paragraph of page 14 states that "land stabilized by installation of terraces will reduce velocity of surface runoff waters to increase infiltration, reduce erosion, and reduce losses of natural soil fertility by nutrients being carried away in runoff water and eroded particles". In some instances, however-- depending on geological relationships in the area--the use of terraces may induce slope failures, with subsequent increases in erosion.

In summary, the major concern of the State Agencies involves the more clearly defined circumstances in which this program would be implemented in response to situations in which there is a clear and immediate threat to life and property resulting from a natural disaster. Furthermore, we believe that responsive measures subsequent to a disaster situation would best be implemented by close coordination between Federal and State Agencies. In this way, the efforts of State and Federal Agencies following a disaster would compliment each other and result in the most desirable results with the most efficient expenditure of funds. We, therefore, request that prior to project implementation State Agencies conducting correlary activities be notified so that a united post disaster program can be implemented which utilizes the manpower and resources of all to the highest possible degree.

Notwithstanding these comments, we support and commend what we believe to be the objectives of this program.

We thank you for the opportunity to review this document and look forward to the reception of the Final Statement.

Very truly yours,

Ira L. Whitman
Director

ILW/gcc
81101.1

cc: Robert Quilliam, State Conservationist
W. B. Nye, Director, Ohio Department of Natural Resources
State Clearinghouse
File (2)

OFFICE OF THE GOVERNOR
STATE CAPITOL
SALEM 97310

TOM McCALL
GOVERNOR

June 14, 1974

Mr. Forest L. Miller
U.S. Department of Agriculture
Soil Conservation Service
1218 S.W. Washington Street
Portland, Oregon 97205

Dear Mr. Miller:

Subject: Emergency Watershed Protection Program
PNRS #7404 4 760

We have distributed copies of your draft Environmental Impact Statement to the appropriate state agencies for their review and comments in conformance with the guidelines of the Council of Environmental Quality and Office of Management and Budget Circular A-95. In addition, a notification of its availability has been published and distributed to all state agencies and all Councils of Governments inviting their inquiry.

The attached responses suggest points to be considered and included in your final statement.

We invite you to communicate further with the interested agencies if you require clarification or assistance. Please forward copies of correspondence to the Clearinghouse using the file number we have assigned as reference.

We will expect to receive 5 copies of the final statement for review and comment as required by CEQ quidelines.

Sincerely,

Harold F. Brauner
Assistant to the Governor
Natural Resources

HFB:Rt
Enc.

OREGON PROJECT NOTIFICATION AND REVIEW SYSTEM

STATE CLEARINGHOUSE

MAY 2 1 1974
LOCAL GOVERNMENT RELATIONS DIVISION

Local Government Relations Division
240 Cottage Street S.E., Salem, Oregon 97310
Ph: 378-3732

RECEIVED
APR 30 1974
STATE SOIL AND WATER CONSERVATION COMMISSION

PNRS STATE REVIEW

Project #: 7404 4 760 Return Date: JUN 3 1974

ENVIRONMENTAL IMPACT REVIEW PROCEDURES

1. A response is required to all notices requesting environmental review.
2. OMB A-95 (Revised) provides for a 30-day extension of time, if necessary. If you cannot respond by the above return date, please call the State Clearinghouse to arrange for an extension.

ENVIRONMENTAL IMPACT REVIEW
DRAFT STATEMENT

( ) This project does not have significant environmental impact.

(X) The environmental impact is adequately described.

( ) We suggest that the following points be considered in the preparation of a Final Environmental Impact Statement regarding this project.

( ) No comment.

REMARKS

Following the mid-January floods of this year, funds have been requested for restoration and repair of critical streambank erosion in Jackson, Josephine, Tillamook, Wallowa, Wasco, Grant and Gilliam Counties.

I feel the draft environmental statement very completely described the impact that the proposed rehabilitation program will have on our environment.

OREGON PROJECT NOTIFICATION AND REVIEW SYSTEM

STATE CLEARINGHOUSE

Local Government Relations Division
240 Cottage Street S.E., Salem, Oregon 97310
Ph: 378-3732

MAY 1 4 1974
240 Cottage S. E.
Salem, Oregon 97310

PNRS STATE REVIEW

Project #: 7404 4 760 Return Date: JUN 3 1974

ENVIRONMENTAL IMPACT REVIEW PROCEDURES

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DRAFT STATEMENT

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(X) The environmental impact is adequately described.

( ) We suggest that the following points be considered in the preparation of a Final Environmental Impact Statement regarding this project.

( ) No comment.

- - - - - - - - - -

REMARKS

This general statement applies to a program rather than projects, and in that respect it appears to be adequate. It should be useful in preparing project impact statements.

We question if it will satisfy requirements for impact statements on individual projects and if it can be used to cover all work done under the program.

Agency Forestry By Philip D. Brogan

OREGON PROJECT NOTIFICATION AND REVIEW SYSTEM

STATE CLEARINGHOUSE

GOVERNMENT RELATIONS DIVISION
MAY 8 1974

Local Government Relations Division
240 Cottage Street S.E., Salem, Oregon 97310
Ph: 378-3732

PNRS STATE REVIEW

Project #: 7404 4 760 Return Date: JUN 3 1974

ENVIRONMENTAL IMPACT REVIEW PROCEDURES

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ENVIRONMENTAL IMPACT REVIEW
DRAFT STATEMENT

(.) This project does not have significant environmental impact.

(xx) The environmental impact is adequately described.

( ) We suggest that the following points be considered in the preparation of a Final Environmental Impact Statement regarding this project.

( ) No comment.

- - - - - - - - - - -

REMARKS

May 3, 1974

RECEIVED
APR 30 1974
DIVISION OF STATE LANDS

The Division of State Lands should issue permits for all Oregon projects which fall under the jurisdiction of the removal/fill law (ORS 541.605 et seq.)

Agency Lands By Hans Hamilton

Agency Soil & Water By Brad Hall Jr. Valley, Area Co

OREGON PROJECT NOTIFICATION AND REVIEW SYSTEM

STATE CLEARINGHOUSE

Local Government Relations Division
240 Cottage Street S.E., Salem, Oregon 97310
Ph: 378-3732

INTERGOVERNMENT RELATIONS DIVISION
RECEIVED
MAY 31 1974
APR 30 1974
FISH Commission

PNRS STATE REVIEW

Project #: 7404 4 760 Return Date: JUN 3 1974

ENVIRONMENTAL IMPACT REVIEW PROCEDURES

1. A response is required to all notices requesting environmental review.
2. OMB A-95 (Revised) provides for a 30-day extension of time, if necessary. If you cannot respond by the above return date, please call the State Clearinghouse to arrange for an extension.

ENVIRONMENTAL IMPACT REVIEW
DRAFT STATEMENT

( ) This project does not have significant environmental impact.

(X) The environmental impact is adequately described.

(X) We suggest that the following points be considered in the preparation of a Final Environmental Impact Statement regarding this project.

( ) No comment.

- - - - - - - - - - -

REMARKS

While the over-all statement is adequate, it does not reflect the extent of environmental impact associated with specific projects. For this reason, we desire to be made aware of specific activity proposals as they become necessary. Attached is a list of persons in the Fish Commission who can provide some assistance in the planning for project activities.

Attachment

Agency Fish By Ronald W. Hamelman

COORDINATION OF FISH RESOURCE PROTECTION WITHIN THE FISH COMMISSION OF OREGON

The Fish Commission of Oregon has employees in two divisions directly involved in protecting fish habitat in Oregon, including that of all food fish; shellfish and marine invertebrates. The two divisions are Administration and Management and Research.

Administration Division

The Water Resources Section of the Administrative Division is primarily responsible for protecting fish resources from conflicting water uses, as well as incorporation of fish resource needs into land and water-use planning throughout the state. The Section is headquartered at 307 State Office Building, 1400 S. W. Fifth Avenue, Portland, Oregon 97201. Section personnel are responsible for obtaining fish resource enhancement and protecting public use of aquatic resources over the state.

The following personnel are assigned to the Section:

Mr. James B. Haas, Water Resources Analyst, 229-5690.
Section Supervisor, responsible for all Section activities.

Mr. Ronald W. Hasselman, Assistant Water Resources Analyst, 229-5692.
Assistant Section Supervisor
Responsible for broad agency involvement with forest management, state water-use policy, and correction of downstream migrant passage problems.

Mr. Irving W. Jones, Pollution Bio-Analyst, 229-5693.
Responsible for broad agency involvement with all water pollution problems, fish kills, nuclear plant siting.

Mr. Charles K. Walters, Water Resources Specialist, 229-5689.
Responsible for agency involvement in waterway fill-removal activities and coastal zone management plan formulation.

Mr. Lincoln S. Pearson, Basins Specialist, 229-5694.
Responsible for agency involvement with water project developments within Oregon, state-wide water-use planning, and passage problems at small dams and culverts.

Mr. Burton E. Carnegie, Fish Passage Specialist, 229-5111.
Responsible for agency involvement with fish passage surveillance at all main stem Columbia and Snake River dams, passage requirements at dams and other structures and highway projects within Oregon.

The above personnel are concerned with fishery protection throughout the state and are appropriate contacts on field problems and administrative or policy matters needing higher attention by this agency on a forest area, or basin-wide basis. Further, these people should be consulted where protection problems cannot be locally resolved by the agency's field staff. Additionally, they will provide assistance where the Fish Commission has no field personnel.

Management and Research Division

The Management and Research Division has designated some biologists as Area Resource Managers and has assigned them the responsibility of protecting and developing fish resources in specified areas of the state. Area Resource Managers evaluate fisheries protection problems which are coordinated by the Water Resources Section. These men are to be contacted concerning resource problems in their areas. Following is a descriptive list of these areas including the biologist(s) to contact. A map of these areas is also attached.

North Coast

Area: From the Necanicum River drainage on the north, south to and including the Nestucca River drainage.

Contact: T. Edwin Cummings
Fish Commission Field Laboratory
Box 281
Tillamook 97141
Phone 842-2223

Home: 4207 Filbert Street
Tillamook 97141
Phone 842-7978

North Central Coast

Area: From, but excluding, the Nestucca River drainage south to and including the Siuslaw River drainage.

Contact: Delbert G. Skeesick
Fish Commission Marine Headquarters
Marine Science Drive
Newport 97365
Phone 867-4741

Home: Box 149
116 Fourth Street
Southbeach 97366
Phone 867-4912

South Central Coast

Area: From, but excluding, the Siuslaw River drainage south to and including the Floras Creek drainage (includes the Umpqua River east to Elkton).

Contact: Robert E. Mullen

Fish Commission Field Laboratory
Box 5529
Charleston 97420
Phone 883-3771

Home 3581 Sherman Avenue, Apartment 22
North Bend 97459
Phone 756-6653

South Coast

Area: From, but excluding, the Floras Creek drainage south to the California border (includes the Rogue River east to Illahe).

Contact: William G. Mullarkey

Fish Commission Field Laboratory
P. O. Box 1182
Brookings 97415
Phone 469-4239

Home: Route 1, Box 83B
Brookings 97415
Phone 469-2383

South Willamette

Area: The Willamette River Basin south of, but including, the Santiam River drainage on the east and the Lucklamute River drainage on the west.

Contact: Paul G. Ingram

Office: Green Peter-Foster Project
U. S. Army Corps of Engineers
Star Route
Foster 97345
Phone 367-5124

Home: 1037 Pleasant Valley Road
Sweet Home 97386
Phone 367-5024

Northeast

Area: Imnaha, Grande Ronde, Walla Walla and Umatilla drainages in Oregon.

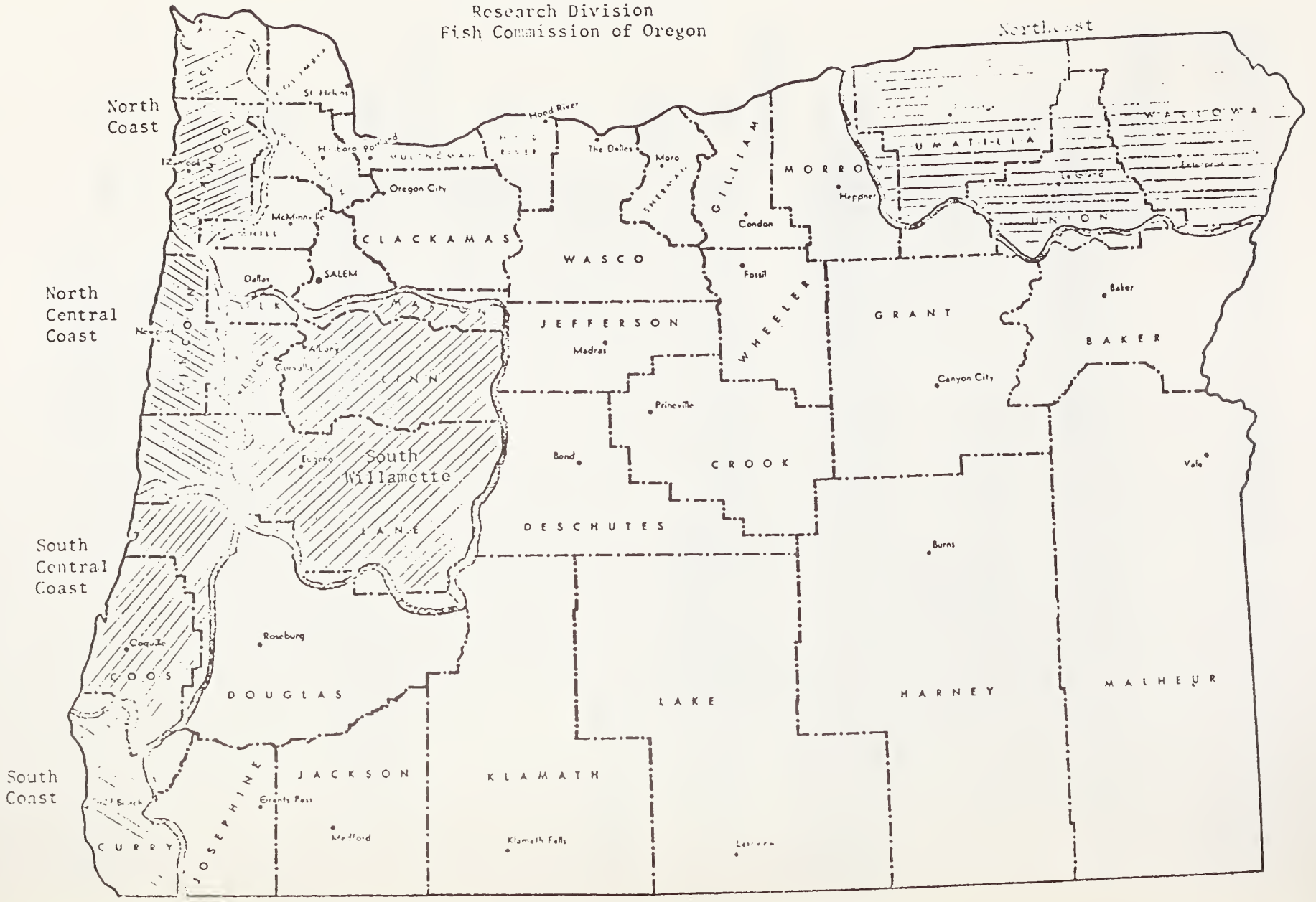
Contact: Wayne A. Burck
Fish Commission Field Laboratory
P. O. Box 325
Elgin 97827
Phone 437-5505

No Resource Management biologists are assigned to the balance of the state. If information is required from the Management and Research Division regarding resource problems in this area, limited assistance will be provided by:

Melvin D. Collins
Management and Research Headquarters
17330 S. E. Evelyn Street
Clackamas 97015
Phone 656-1457

Attachment: Map

RESOURCE MANAGEMENT AREAS
Research Division
Fish Commission of Oregon



COMMONWEALTH OF PENNSYLVANIA
GOVERNOR'S OFFICE
OFFICE OF THE BUDGET
HARRISBURG, PA. 17120
P.O. Box 1323

ENVIRONMENTAL IMPACT REVIEW
PENNSYLVANIA STATE CLEARINGHOUSE
Phone: 717-787-8046
1974 September 12

Title: DEIS-Emergency Watershed Protection Program

Mr. Benny Martin
State Conservationist
U. S. Dept. of Agriculture
Box 985
Federal Square Station
Harrisburg, Pennsylvania 17108

Location: Nationwide

Applicant: U. S. Dept. of Agriculture

PSCH project number: 74-05-3-001

Dear Mr. Martin:

The Governor's Budget Office, as the State Clearinghouse for the Commonwealth of Pennsylvania, has received and transmitted to various State agencies, including the Department of Environmental Resources, copies of the environmental statement mentioned above.

Attached to this letter please find the comments of the Department of Environmental Resources and the following State agencies:

Please consider these the official response of the Commonwealth in this matter.

Sincerely,

Richard A. Heiss, Coordinator
Pennsylvania State Clearinghouse

COMMONWEALTH OF PENNSYLVANIA

DEPARTMENT OF ENVIRONMENTAL RESOURCES

The Secretary

P. O. BOX 1467
HARRISBURG, PENNSYLVANIA 17120

September 3, 1974

SUBJECT: Department of Environmental Resources
Review and Evaluation of
PSCH No.: 74-05-3-001

TITLE: DEIS - Emergency Watershed Protection Program Authorized by Section 216 of the Flood Control Act of 1950, Public Law 81-516 (33 USC 701B-1)

LOCATION: Nationwide

TO: R. A. Heiss, Coordinator
Pennsylvania State Clearinghouse

FROM: MAURICE K. GODDARD
Secretary of Environmental Resources

Submitted Draft Environmental Impact Statement for the purposed project is granted clearance on condition that the requirements mentioned in this Project Review and Evaluation Report are met.

This project has been evaluated on the basis of the actions proposed in the applicant's submission. Any approval, granted or implied, does not extend to any changes made by the applicant subsequent to and not in keeping with our recommendations. Any such changes will require a new submission through the Pennsylvania State Clearinghouse.

DEPARTMENT OF ENVIRONMENTAL RESOURCES
SUMMARY OF REVIEW AND EVALUATION

PSCH No.: 74-05-3-001

TITLE: DEIS - Emergency Watershed Protection Program Authorized by Sect. 216 of the Flood Control Act of 1950, Public Law 81-516 (33 USC 701B-1)

Date: September 3, 1974

LOCATION: Nationwide

The following comments are made based on the review and evaluation of the submitted project.

1. The Department of Environmental Resources retains an interest in this project and environmental effects encountered or anticipated in the further development of this project.

2. The emergency watershed protection program authorized by section 216 of the Flood Control Act of 1950, 33 U.S.C. 701B-1, includes a series of activities by the U.S. Department of Agriculture, Soil Conservation Service (SCS), to address emergency conditions in watersheds following major disasters. Among the actions taken under the program are revegetation projects; log road stablization; clean out of road ditches and culverts; diversion of stormwater around roadways; mechanical protection of exposed roads; installations of rip rap, gabions, or mechanical stream bank protection devices; removal of sediment and debris from channels, bridges and road culverts; construction of open channels or flood water diversions; installation of debris basins; repair of damaged dikes and dams; stablization structures and similar structural measures for water and erosion control.

3. The vast majority of the SCS emergency watershed protection program has a beneficial effect upon the watershed environment by accelerating recovery of watersheds from post-disaster conditions. The draft environmental impact statement heavily stresses the importance of revegetation as the single most beneficial means of assisting the recovery of affected watersheds. The erosion and sedimentation which is reduced and controlled by such revegetation would otherwise become a major environmental contaminent, degrading both water quality and threatening the aquatic habitat. Similar beneficial environmental impacts may be expected from SCS projects involving the stabilization of gullies, and control of log road and stream bank erosion. SCS activities involving the clean out of road ditches and culverts in order to restore their flood carrying capacity should have a net beneficial impact upon reduction of flooding and protection of life and property, with minimal, if any, adverse environmental impact from contamination and siltation.

4. The Draft EIS appears reasonably complete within NEPA requirements, with one exception subsequently noted herein. The adverse impacts identified are the permanent and temporary effects normally associated with land clearing and channelization projects; i.e., degradation of fish and wildlife habitat, increased sedimentation and turbidity, degradation of air quality during construction, etc.. The adverse impacts are generally dismissed as being of minor importance because they will occur in an already degraded post-disaster condition, or they will

prevent more significant long-term adverse effects which would result if the post-disaster condition was not rectified. Although this may be a proper conclusion in theory, our recent, rather extensive, flood disaster experience reveals that, in practice, the disaster restoration may actually cause more environmental damage than the disaster itself, especially when channel cleaning is involved.

5. The one aspect of the SCS program which is of particular concern to this Department regards the construction of open channel and flood water diversion measures to reorient affected streams. Following the Hurrican Agnes Floods of 1972, a series of so-called "stream restoration" projects were undertaken by various local jurisdictions without adequate state or federal supervision. At that time, the Department of Environmental Resources waived permit requirements for a certain class of emergency flood clean-up activities. Typical items of work for which permits were not required included:

1. Removal of debris, trees, extensive silt and gravel bars, land slides, and other obstructions which would appreciably affect flood flows or could ultimately wash down stream.

2. Where a stream had left its historical channel, restoration of a stream to its preflood channel together with restoration, to the maximum extent practical, of the preflood stream regimen and channel width.

3. Restoration and stablization of eroded stream banks.

6. However, the aquatic habitats of many streams, including several trout streams, were virtually destroyed by extensive, unwarranted, dredging and channelization. In most cases, only spot removal of debris at critical locations such as bridges and culverts was all that was required. This wholesale dredging, conceived in the emotion-laden atmosphere following a disaster, and accomplished under the the guise of debris removal, is recognized as a serious problem by both the Department and the Pennsylvania Fish Commission. This problem has received no attention in the subject Draft EIS.

7. The Department strongly opposed inclusion within emergency flood projects of activities which involved relocation and modification of the stream regimen rather than restoration of streams to preflood conditions. In particular, the Department strongly opposed inclusion of the following with in emergency flood clean-up projects: (1) long reach dredging of a stream; (2) widening of a stream beyond its natural preflood condition; (3) construction of channel improvement projects and construction of dikes and levies; (4) restoration and replacement of an encroachment which was originally constructed without a proper state permit and which encroached on the stream prior to the flood.

8. For this reason we are concerned that the emergency SCS program be carefully delineated and implemented to result in a true restoration of watersheds to their pre-disaster condition. Channel relocation, widening, dredging and similar modifications are not, we believe subjects of emergency watershed work.

9. Section 1b, c, d - SCS feels strongly that bare stream banks, or any large bare portion of a watershed, is a serious environmental problem. FDAA, in their latest manual, allows some seeding and riprap, but seems almost nonchalant

about the whole situation. Perhaps FDAA should take a hint from SCS and heartily approve emergency bank stabilization measures, over and above their coordination during declared disasters.

10. We seriously question whether the opportunity to retain businesses and residences on the flood plain should be cited as a favorable environmental impact as indicated under item 2g.

11. We further note that the draft environmental impact statement fails to note several procedures which would be instituted by SCS to reduce potential adverse environmental impacts during the implementation of the emergency program. Particular attention should be given to the guidelines and standards developed by the Susquehanna River Basin Commission and the U.S. Army Corps of Engineers for the implementation of emergency stream channel work. Such standards include limits upon the use of machinery in and near water courses in order to minimize disruption of the stream bed and harm to adjacent vegetation. In particular, guidelines should be adopted strongly discouraging the use of bulldozers for the removal of silt and debris and emphasizing the need for execution of emergency work to avoid in stream operations. A caveat should be added to the draft environmental impact statement noting the importance of federal agency supervision of contractors involved with such watershed work to assure compliance with these environmental guidelines.

12. The project will not result in any major air pollution problems, however, the grading and excavation of the effected areas will require the use of construction machinery. Contractor(s) should be made aware of the Department's rules and regulations concerning fugitive dust emissions. Since the Environmental Impact Statement mentions the burning of debris, reference should be made to Chapter 129 of the Department's rules and regulations which limits open burning operations.

COMMONWEALTH OF PUERTO RICO
DEPARTMENT OF NATURAL RESOURCES
P.O. Box 5887 Puerta de Tierra, Puerto Rico 00906

All official communications should be addressed to the
SECRETARY OF NATURAL RESOURCES

No.....
Please mention this number
when referring to this matter.

June 5, 1974

Mr. Kenneth E. Grant
Administrator
USDA - Soil Conservation Service
Washington, D. C. 20250

Re: Emergency Watershed
Protection Program
Washington, D. C.

E.I.S. 574-045 D.A. S.C.S.

Dear Mr. Grant:

The Department of Natural Resourses of the Commonwealth of Puerto Rico reviewed the document mentioned above. The following are the comments of this Department on this subject:

The concept of having funds available to do emergency watershed protection work is good, especially here in Puerto Rico where erosion can be a particularly severe problem. However, we would warn that in nature, "disasters" are part of the natural system; stream banks erode due to entirely natural processes, many rivers are naturally silty, natural systems may depend on a fluctuating environment, etc. Hopefully these factors will be taken into consideration when individual emergency projects are undertaken, and the limited funds will not be spent trying to reverse natural processes. This would be a waste of resources inasmuch as the natural system has much more energy available to use than watershed protection program, and consequently the natural system will eventually prevail.

Mr. Kenneth E. Grant

Rather, these funds would be used most beneficially on projects which attempt to maintain valuable natural systems where the unenlightened activity of man has threatened to substantially reduce or destroy these valuable systems. This, then, would represent the case of man attempting to rectify his earlier errors to allow the natural systems function normally, providing a variety of services for the human system. In this case man's errors may range from improper land use to the construction of high maintenance and environmentally unsound water related structures.

In summary, the concept is applauded, but the program success will be based 100% on the types of projects which are undertaken and their relationship to natural processes.

Cordially yours,

Ariel Lugo
Assistant Secretary
Planification and Analysis
Area

PA RHF/asr

cc: Environmental of Quality Board

Mr. Angel H. Quintero

STATE OF TENNESSEE
OFFICE OF URBAN AND FEDERAL AFFAIRS
SUITE 1312
ANDREW JACKSON STATE OFFICE BUILDING
NASHVILLE 37219

JAMES A. PAYNE
~~GARY S. SASSE~~
DIRECTOR

615-741-2714

June 12, 1974

Mr. Kenneth E. Grant, Administrator
Soil Conservation Service
U. S. Department of Agriculture
Washington, D. C. 20250

Re: Emergency Watershed Protection Program - Draft Environmental Impact Statement, USDA-SCS

Dear Mr. Grant:

In conformance with guideline procedures stipulated in OMB Circular A-95 and in accordance with the Governor's Executive Order 6, designating the Office of Urban and Federal Affairs as the State Clearinghouse for Federal grant programs, we have reviewed your draft environmental statement on the above mentioned proposed program. We concur that there will be a minimum of adverse environmental effects.

Our evaluation of submitted materials identified no conflicts with existing or planned State activities. Therefore, we deem the proposal acceptable on the basis of information made available to us at this time.

We recommend acknowledgement of the Flood Disaster Protection Act of 1973 (PL93-234) in Section 5(c), "Land Use Changes and Flood Plain Management Measures". The Act will have significant bearing on flood plain management and any Emergency Watershed Program that may be instituted. Please advise as to the availability of "pre-disaster" watershed protection such as discussed in Section 5(c).

If our office, as the State Clearinghouse, can be of further assistance, please do not hesitate to contact us.

Sincerely,

Stephen H. Norris
Grant Review Coordinator

SHN/prp

cc: Mr. Paul M. Howard

STATE OF TENNESSEE
OFFICE OF URBAN AND FEDERAL AFFAIRS
SUITE 1312
ANDREW JACKSON STATE OFFICE BUILDING
NASHVILLE 37219

JAMES A. PAYNE
DIRECTOR

615-741-2714

July 9, 1974

Mr. Kenneth E. Grant, Administrator
Soil Conservation Service
U. S. Department of Agriculture
Washington, D. C. 20250

Re: Emergency Watershed Protection Program
Draft Environmental Impact Statement
USDA - SCS

Dear Mr. Grant:

Pursuant to our Clearinghouse letter of June 12, 1974, we are forwarding comments submitted late by the Tennessee Wildlife Resources Agency. We urge your consideration and would appreciate a response to these comments in the final statement, if at all possible.

Sincerely,

Stephen H. Norris

Stephen H. Norris
Grant Review Coordinator

SHN/prp

Enclosure

JUN 13 RECD

TENNESSEE WILDLIFE RESOURCES AGENCY

ELLINGTON AGRICULTURAL CENTER
P. O. BOX 40747
NASHVILLE, TENNESSEE 37204

HARVEY G. BRAY, Director
ROY H. ANDERSON, Ass't. Dir.

June 5, 1974

Mr. Richard A. Henderlight
Office of Urban and Federal Affairs
Suite 1312
Andrew Jackson State Office Building
Nashville, Tennessee 37219

Re: Draft EIS - Emergency Protection Program

Dear Mr. Henderlight:

We have reviewed the draft EIS for the Emergency Watershed Protection Program (EWPP) and have the following recommendations for the final draft.

1. On page 19, it is stated that the removal of canopy from streams could be an unavoidable effect of an Emergency Watershed Protection Project. This seems inconsistant with the policy of Watershed Memorandum 124 (page 2 of Appendix) where it is stated that this emergency protection is, "not to solve watershed problems that existed prior to the natural disaster."

2. More emphasis should be placed in the body of the report and subsequent guidelines concerning restoration to only pre-impairment conditions. At least one Tennessee stream was altered under this program during the fall of 1973 to much more than pre-storm conditions. According to reports from other states, this was not unique. We recommend sufficient clarification to avoid such future occurences.

3. It is recognized that natural disasters do occur that require emergency restoration. However, based on the approximately ten Tennessee projects investigated during 1973 it is believed that the word "disaster" is over emphasized throughout the statement. A term like "watershed impairment" is believed more appropriate for general use.

4. On page 22 it is stated that a complete watershed program, including open channels, would have less environmental impact than an emergency project. We believe that projects providing open channels would be more detrimental on fish and wildlife. This would be provided by spot treatment of channels by emergency projects. According to page 6, the A. D. Little Report described

TENNESSEE WILDLIFE RESOURCES COMMISSION

Johnson City
Savannah
Bruceton
Cleveland
Lawrenceburg

channelization as "post-disaster environmental conditions in the stream." We recommend that "open channels" be deleted from the list of complete watershed treatments on page 22.

Sincerely,

Harvey Bray

Harvey Bray, Director
Tennessee Wildlife Resources Agency

RMH/bg

cc: Mr. Gary Meyers, Assistant Director, Field Operations
Mr. Roy Anderson, Assistant Director, Staff Operations
Mr. Gedeon D. Petit, Chief, Planning and Environmental Resources

DOLPH BRISCOE
GOVERNOR

OFFICE OF THE GOVERNOR
DIVISION OF PLANNING COORDINATION

JAMES M. ROSE
DIRECTOR

July 1, 1974

Mr. Kenneth E. Grant
Administrator
United States Department of Agriculture
Soil Conservation Service
Washington, D. C. 20250

Dear Mr. Grant:

The Draft Environmental Impact Statement (EIS) for the Emergency Watershed Protection Program, submitted by the Soil Conservation Service, has been reviewed by the Governor's Division of Planning Coordination and by other interested State agencies.

Review participants have submitted the following comments that warrant your consideration:

1. The Texas Parks and Wildlife Department recommended that greater emphasis be placed on non-structural measures to mitigate flood damage, such as adequate zoning, studies to determine flood plain development and use which are compatible with riparian ecosystems, and other measures which cause a minimum amount of ecological damage.

2. Extensive comments were received from the Texas Water Rights Commission (TWRC), including a recommendation that the document contain mention of the specific conditions of 33 USC 701b-1, pertaining to total annual program limitations. The TWRC also recommended that the subject of prolonged droughts be added in the classes of emergencies, since droughts can cause a "sudden impairment" of the ecosystem, a condition as stipulated in the EIS.

Enclosed are the comments from the review participants; these comments are submitted with constructive intent, and are designed to aid your planning

P. O. BOX 12428, CAPITOL STATION, AUSTIN, TEXAS 78711
Phone 512/475—2427 Offices Located in Sam Houston State Office Building

efforts. If we can be of further assistance, please let us know.

Sincerely,

JAMES M. ROSE
Director

JMR/wsb
Enclosures
cc: Mr. Clayton Garrison, Texas Parks and Wildlife Department
Mr. A. E. Richardson, Texas Water Rights Commission
Mr. Harry P. Burleigh, Texas Water Development Board
Mr. Harvey Davis, Texas State Soil and Water Conservation Board
Mr. Hugh C. Yantis, Jr., Texas Water Quality Board
Mr. B. L. DeBerry, Texas Highway Department
Mr. Charles R. Barden, Texas Air Control Board

TEXAS
PARKS AND WILDLIFE DEPARTMENT

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San Antonio

CLAYTON T. GARRISON
EXECUTIVE DIRECTOR

JOHN H. REAGAN BUILDING
AUSTIN, TEXAS 78701

June 7, 1974

Mr. Wayne N. Brown, Chief
State Planning and Development
Office of the Governor
P.O. Box 12428, Capitol Station
Austin, Texas 78711

Dear Mr. Brown:

This Department has reviewed the draft environmental statement dated March, 1974 for the emergency watershed protection program proposed by the U.S. Soil Conservation Service. The following comments are offered:

It is felt that rewriting of much of the statement is necessary for it to be grammatically creditable and to reduce ambiguity. The statement is excessively repetitious, and is considered to inflate the general need for and degree of benefits from the flood control program proposed.

Its context is somewhat contradictory in that it purports to apply treatments which will mollify the adverse effects from flooding of riparian ecosystems, yet some of the treatments prescribed would adversely affect the riparian biota. Such treatments include channelization, bank clearing and shaping, clearing to facilitate construction for flood control, building artificial flood control structures, and possible artificial reestablishment of native flora with exotic species.

Although an abbreviated dissertation on certain ecological phenomena and the requirements necessary to perpetuate riparian biota prefaces the data presented, the statement appears to merely be a different approach to conventional Soil Conservation Service flood protection proposals.

While language in the document infers that the proposed flood relief measures are needed to modify damage to man and to native biota, it is doubtful that the biota would accrue a high degree of net benefits from the measures.

A need for emergency relief for humans from flood disasters is recognized. However, it is felt that the greatest thrust for the modifica-

tion of flood damage should involve the activities mentioned of zoning of land use, studies to determine flood plain development and uses compatible with riparian ecosystems, temporary flood relief treatments which would cause a minimum of ecological damage, and the application of land management practices which would enable the maintenance of soils in place.

The inference that flooding has caused rural people to "migrate" to urban centers (page 18) needs clarification. Such inferences evidence our remark that certain statements inflate existing conditions. A more influencial and realistic cause of rural residents relocating in urban areas is their discontinuance of farming for a livelihood due to change in the standard of living, economic development, and agricultural trends from small farming operations to large scale operations on vast acreages.

It is suggested on page 20, paragraph 7 of the statement that the proposed watershed program would influence a reduction in the tendency of people to relocate development, now existing on overflow lands, so as to create an accelerated invasion "into the nation's vast land resources". It is difficult to envision a more accelerated invasion of our land resources than is presently occurring. This invasion is imminent due to the nation's population growth and economic development; that induced by floods is relatively insignificant.

The reiterations in the statement which state that without the proposed flood controls the opening of additional agricultural lands will be required, may not be completely accurate. Sometime in the future, the amount of land area needed to produce food may require more expansion into flood plains. Presently, however, the trend in Texas has been toward a reduction in crop producing acreage and much land which was once used for crops outside of flood zones, has been converted to pasture-land, forest land or is lying fallow.

Sincerely,

CLAYTON T. GARRISON
Executive Director

CTG:WJS:ac

TEXAS WATER RIGHTS COMMISSION

SAM HOUSTON STATE OFFICE BUILDING

COMMISSIONERS

JOE D. CARTER, CHAIRMAN
475-2453

OTHA F. DENT
475-2451

DORSEY B. HARDEMAN
475-4325

May 22, 1974

A. E. RICHARDSON
EXECUTIVE DIRECTOR
475-2452

AUDREY STRANDTMAN
SECRETARY
475-4514

Mr. James M. Rose, Director
Governor's Division of Planning
Coordination
P. O. Box 12428, Capitol Station
Austin, Texas 78711

Attention: Mr. Wayne N. Brown, Chief
State Planning and Coordination

Re: U.S. Department of Agriculture, Soil Conservation Service, Draft Environmental Impact Statement on "Emergency Watershed Protection Program Authorized by Section 216 of the Flood Control Act of 1950, Public Law 81-516 (33 USC 701b-1)," March 1974.

Dear Mr. Rose:

In reply to the request in your Memorandum of May 10, 1974, the staff of the Texas Water Rights Commission has reviewed the referenced document which contains guidelines for the preparation of environmental impact statements for emergency joint Federal/State projects under Section 216 of Public Law 81-516, the Flood Control Act of 1950, approved May 17, 1950.

The staff finds that the referenced document represents a thorough and excellent effort to apply the provisions of Public Law 91-190, the National Environmental Policy Act of 1969, to the complex types of emergency projects envisaged by Congress in the authorization which it granted in Section 216 of Public Law 81-516. However, the following comments are furnished for your consideration with the view of enhancing the guidelines contained in the document, and of overcoming the basic difficulty encountered in implementing Section 216 of Public Law 81-516:

1. Analysis of the annotations (specifically, "Amendments") under 33 USC 701b-1, indicates that in amending the Act to provide for an increase in the amount of money that could be expended during any one fiscal year, the $3,000 limitation was qualified by the phrases, "in any locality in any one year." (Emphasis added.) The quotation appearing on page 1 of the referenced document is an accurate quotation of Section 216, Public Law 81-516. As such, it does-not include important relevant wording and conditions contained in 33 USC 701b-1, pertaining to total annual program limitations, and mention of the important conditional phrases quoted above. Clarification would be helpful.

2. The document brings out an apparent contradiction: On one hand, both the enabling legislation and the implementing guidelines reflect recognition of the problems involved in trying to determine the chain of effects on watersheds and watercourses resulting from violent, sudden natural events, and the importance of taking timely, selective, remedial actions in order to avoid greater, and, perhaps, permanent damages. On the other hand, the Act imposes inherent Federal funding restraints; and, the Act does not appear to provide for a supplemental emergency funding process. The implementing guidelines, contained in the United States Department of Agriculture, Soil Conservation Service's WATERSHED MEMORANDUM-124 (Rev.1), July 24, 1973, made Appendix B of the subject document, is considered an outstandingly fine effort to establish the needed special procedures to prepare and process emergency watershed protection projects. In this regard, the only suggestion offered by the staff is that even greater emphasis be placed on two criteria: (a) high selectivity; and,(b) timely execution. However, the basic problem of timely availability of adequate Federal funding assistance still remains. Unless some remedial

action is taken in the funding process, the objectives of the emergency Act will not be achieved. Pending the possible enactment of new legislation, the staff believes that consideration should be given to obtaining interim Congressional and Departmental agreement on the transfer of funds (subject to restoration) from other watershed development programs, use of no-year maintenance funds, or use of Revenue Sharing funds, in order to avoid costly delays in the execution of vital emergency watershed protection projects.

3. Finally, the staff believes that prolonged droughts eventually convert the conditions throughout watersheds to the point where they have the same kind of instabilities brought on by sudden natural physical events -- as described in the subject document. Therefore, consideration should be given to including droughts in the class of emergencies included in Public Law 81-516. In a biological sense, "sudden impairment" is a relative expression insofar as man, animals, and plants are concerned.

The above comments are furnished with constructive intent of enhancing the subject document.

If you have any questions on this matter, please call or write to Dr. Alfred J. D'Arezzo, Environmental Sciences Analyst, telephone 512-475-2678.

Sincerely yours,

A. E. Richardson

A. E. Richardson

AER-AJD:11

TEXAS WATER DEVELOPMENT BOARD

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EXECUTIVE DIRECTOR

P.O. BOX 13087
CAPITOL STATION
AUSTIN, TEXAS 78711

AREA CODE 512
475-3571

1700 NORTH CONGRESS AVENUE

May 22, 1974

IN REPLY REFER TO:
TWDBP-O

General James M. Rose, Director
Division of Planning Coordination
Office of the Governor
P.O. Box 12428, Capitol Station
Austin, Texas 78711

Dear Jim:

Please refer to your memorandum dated May 10, 1974 transmitting for review and comment the Soil Conservation Service's Draft Environmental Impact Statement for the Emergency Watershed Protection Program.

The watershed protection program has been designed as a plan of action to be implemented in the event of sudden or unusual occurrences on a watershed, such as a forest fire, hurricane, earthquake, landslide, or other catastrophic phenomena. Such event(s) could be followed by flooding, erosion, unusual sedimentation in the stream, or deposition of debris. Corrective measures to be employed would not necessarily be the same as would be followed in presently-established flood retardation and land treatment programs. Funds for relieving the emergency conditions are limited by law to $300,000 for any one watershed during any single fiscal year.

This statement attempts to outline subject matter which shall be covered in an environmental impact statement to be prepared in the event a remedial work plan is to be prepared for the purpose of relieving an emergency condition. Great flexibility is therefore built into the outline, making extremely difficult any specific comments regarding its total adequacy. We find that

environmental impacts, such as flooding, which would accompany hurricanes or excessive rainfalls sometimes recorded in Texas could readily be framed within the outline. In our opinion the outline could be applied to almost any conceivable emergency. We recommend adoption of the proposed draft, as submitted.

The opportunity to furnish these comments is appreciated.

Sincerely,

Harry P. Burleigh

TEXAS STATE SOIL AND WATER CONSERVATION BOARD
1018 First National Building
Temple, Texas 76501
AREA CODE 817, 773-2250
June 3, 1974

Brigadier General James M. Rose
Director, Executive Department
Division of Planning Coordination
Box 12428, Capitol Station
Austin, Texas 78711

Re: Emergency Watershed Protection Program

Dear General Rose:

We have reviewed the draft environmental impact statement prepared by USDA - Soil Conservation Service concerning the Emergency Watershed Protection Program.

It appears that the environmental consequences of repairing and restoring the hydrologic characteristics of watersheds subjected to "sudden impairment" are adequately disclosed. We believe that implementation of emergency measures along the lines of the apparent intent expressed in the statement will result in significant reduction of erosion and restoration of a desirable environment.

Thank you for the opportunity to contribute our comments.

Sincerely yours,

Harvey Davis
Executive Director

HD:ej

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P.O. BOX 13246 CAPITOL STATION 78711
AUSTIN, TEXAS

May 24, 1974

RE: Draft Environmental Impact Statement - Emergency Watershed Protection Program

Gen. James M. Rose, Director
Division of Planning Coordination
Office of the Governor
P. O. Box 12428, Capitol Station
Austin, Texas 78711

Dear General Rose:

The staff of the Texas Water Quality Board has completed a review of the draft environmental impact statement for the Emergency Watershed Protection Program and have concluded that the proposed programs would not pose lasting environmental problems. It has been noted that one of the objectives of the program is to furnish protection from soil erosion and to reduce water pollution, but that water quality may be temporarily degraded by increasing the turbidity as the emergency measures are being installed.

We appreciate the opportunity to review this proposed project. If we can be of further assistance to you, please let us know.

Very truly yours,

Emory G. Long

Emory G. Long, Director
Administrative Operations Division

TEXAS AIR CONTROL BOARD

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May 21, 1974

Mr. Wayne N. Brown, Chief
State Planning and Development
Office of the Governor
Division of Planning Coordination
P. O. Box 12428, Capitol Station
Austin, Texas 78711

Dear Mr. Brown:

We have reviewed the draft environmental impact statement for the Emergency Watershed Protection Program and have no comments to offer. The environmental impacts of this project appear to be essentially water-oriented.

Thank you for your consideration in forwarding this document to our attention. If we can be of further assistance, please contact me.

Sincerely yours,

Bill Stewart, P.E.
Director
Control and Prevention

COMMISSION

REAGAN HOUSTON, CHAIRMAN
DEWITT C GREER
CHARLES E SIMONS

TEXAS HIGHWAY DEPARTMENT
11TH AND BRAZOS
AUSTIN, TEXAS 78701

STATE HIGHWAY ENGINEER
B. L. DEBERRY

May 22, 1974

IN REPLY REFER TO
FILE NO. D-5
File 290

Subject: Draft Environmental Impact Statement for the Emergency Watershed Protection Program

Mr. Wayne N. Brown, Chief
State Planning and Development
Office of the Governor
Division of Planning Coordination
Sam Houston State Office Building
Austin, Texas 78711

Dear Sir:

Thank you for the opportunity to review the subject environmental impact statement. We believe this statement adequately covers the environmental effects which would result from the proposed Emergency Watershed Protection Program. A program, as described, is indeed necessary to safeguard life and property which are threatened by post-disaster environmental conditions. Provisions for coping with the sudden impairment of a watershed and its associated stream network will be beneficial to the Texas Highway System.

Sincerely yours

B. L. DeBerry
State Highway Engineer

By: Marcus L. Yancey Jr.

Marcus L. Yancey, Jr.
Asst. State Highway Engineer

Calvin L. Rampton
Governor

Burton L. Carlson
State Planning
Coordinator

STATE OF UTAH
Office of the
STATE PLANNING COORDINATOR
118 State Capitol
Salt Lake City, Utah 84114
(801) 328-5246

July 18, 1974

Mr. Kenneth E. Grant, Administrator
USDA Soil Conservation Service
Washington, D.C. 20250

Dear Mr. Grant:

The State Environmental Coordinating Committee has assisted us in reviewing the draft Environmental Impact Statement for the Emergency Watershed Protection Program.

Page 25 - Item 6

We feel that state agencies, specifically State Forestry, should be involved in both planning and review when forested lands are involved.

Appendix B - Page 3

Although it is alluded to, this section should specify that State Forestry should be delegated the authority to perform revegetation of forested lands when such actions are feasible.

Throughout the State of Utah the maintenance and enhancement of quality watersheds are of critical importance. The relative scarcity of water in many areas places its value at a premium; therefore, whenever erosion, fire or other natural element or force causes a sudden impairment of a watershed, there is cause for great concern.

The draft Environmental Impact Statement appears to adequately outline the impacts the above measure would have on watersheds in many areas. It is our opinion that the Emergency Watershed Protection Program is of critical importance to the maintence of our valuable water resources. We feel the Draft Environmental Impact Statement is readable and adequately assesses the impacts of a watershed protection program.

Sincerely,

Grover Thompson

Grover Thompson
Environmental Coordinator

GT/els

ARTHUR RISTAU, DIRECTOR

STATE PLANNING OFFICE

STATE OF VERMONT
OFFICE OF THE GOVERNOR
MONTPELIER, VERMONT 05602
AREA CODE 802-828-3326

June 13, 1974

Mr. K. E. Grant
Administrator
Soil Conservation Service
U.S.D.A.
Washington, D. C. 20250

Dear Mr. Grant:

As the state clearinghouse designated in compliance with OMB Circular A-95, we have distributed to areawide clearinghouse and to state agencies authorized to develop and enforce environmental standards the draft environmental impact prepared by your office on the Emergency Watershed Protection Program.

In the interest of submitting a coordinated response, I am reproducing here the comments we have received.

Addison County Regional Planning and Development Commission: This office has reviewed the USDA Environmental Impact Statement and finds it to be a well researched, assembled and informative document.

We would however hold a reservation, that an endorsement of the document would not put us in the position of endorsing a mass exodus of the Corps of Engineers and the New England River Basins Commission to propose the construction of numerous "Flood control Dams" as listed in their latest respective releases.

We feel that any control methods implemented should be thoroughly researched. We would hate to see a repetition of the "channeling" undertaken after the July 1973 flood as well as a continued battle to construct "Flood control Dams" against the wishes of Vermonters, i.e. Victory Bog and Gaysville.

State of Vermont Flood Recovery Office (see attachment referred to in this comment): Stream bank repaid, including stabilization, was and is a major problem in Vermont due to the flood of last summer. To our knowledge, 1200 referrals were made to the SCS for Section 216 funds by the ASCS in the period immediately following the flood. The criteria for Section 216 funds, and perhaps the shortage of funds available immediately after the flood, allowed for only 54 applications to be approved by the Soil Conservation Service. Of the 54 applications approved, only 14 projects were completed. The other 40 projects, proved to be in the public interest, were not completed due to the lack

of funds.

In the interest of protecting water sheds and property, serious consideration should be given to supporting an expansion of 216 funds of the Soil Conservation Service so as to eliminate or reduce the need to seek supplemental appropriations each time a large scale disaster occurs, such as Vermont's most recent disaster.

In addition to the funding problem, there is a serious practical problem in current administration of Section 216 funds which causes severe environmental problems, but which does not emerge in the SCS's analysis of the theoretical environmental impact. As indicated in the red bracketed section of the enclosed Vermont Environmental Report, supervision and control of stream repair work is grossly inadequate under the Section 216 program.

A member of my staff met at least twice for lengthy meetings with Bill Jacobus, President of Trout Unlimited, last fall just a few months after the flood. The topic of these meetings was -- what could be done to prevent the problem this article refers to. Our conclusion was, that short of a very costly program, for which no source of funds could be found, there was no real solution. In lieu thereof, the Flood Recovery Office sent a memorandum to every town flood coordinator with the intent of making them knowledgeable of the problem and informing them of the Fish Biologist in their area, who could give them assistance and guidelines for channel repair with an emphasis on wildlife. It is my understanding that the Fish and Game Department made a similar effort.

The nature of the disaster allowed no alternative to temporarily suspending state control of stream alteration permits. This situation would occur in most emergencies, and the only way to deal with it is a vast expansion in supervision and control of federally funded efforts at temporary repairs made pursuant to Section 216.

State Planning Office: Statements regarding the effects of Alternative 5(c), land use changes and flood plain regulation, overstate the dislocation likely to result from such regulation. Experience in rural areas we believe has shown that such regulation is aimed at preventing further development in flood-prone areas rather than mandating the evacuation of existing uses. Presumably those who choose to continue to live in the flood plain do so at their own risk. In any case agricultural uses are not generally prohibited by flood plain zoning, since they do not involve structures likely to be damaged or borne away by floods.

Agency of Environmental Conservation: For emergency purposes, this draft is probably adequate, but overemphasizes benefits of control programs and does not fully face up to some of the adverse effects, that is - side effects.

The Fish and Game Department has been working with the SCS on "216" projects since last fall and, for the most part, our district fisheries biologists have found it to be a workable arrangement. Our main reservation has had to do with "too clean a channel" and with excessive removal of bank vegetation - "all trees more than 4" to 20' back from top of bank." We are trying to work out modifications of these two matters. Where substantial

stone ballast has been used and cover has been left both in-channel and on-bank the jobs have turned out well.

The draft cites examples of damage extremes, as justification for control, when in fact their extent and duration may be insignificant in the long run. As a result, under the pressures of an emergency situation, unnecessary corrective action might be taken, with the result that costs plus benefit values will be less than the adverse effects of no control. "No program" might be more acceptable, economically and environmentally, than "over reaction" controls and their disadvantages.

The ultimate solution is better land use and floodplain management. As long as emergency funds are available to perpetuate poor land use practices, the public will not face up to the problem and its long term solution. There is a general lack of knowledge on the role of proper land use in preventing flooding and erosion, and associated damages. Erosion control at the source is far more important than control with down-stream dams, and the key to accomplishing this is public understanding and cooperative action.

We will expect that these comments will be included and responded to in the final statement, and we would like to request three copies of that statement for distribution from this office.

Sincerely yours,

Judy W. Walke

Judy W. Walke
State Planner

JWW:en
Encl.
cc: Craig Right, State Conservationist, Soil Conservation Service

VERMONT ENVIRONMENTAL REPORT

Published monthly by The Vermont Natural Resources Council, a non-profit citizens conservation organization supported by membership dues and contributions 26 State Street, Montpelier Vermont 05602 (802) 223-2328 Editor, Arthur Williams

February, 1974, Number 25

STREAMS DAMAGED FROM FLOOD RELIEF PROGRAM

Will there be fishing this spring on the Stony Brook at Stockbridge or on Camp Brook at Bethel? It is still too early to tell, but John Claussen, Fish Biologist for the Fish and Game Department, and other professionals like him concede that many miles of rivers and streams were harmed by actions taken in the aftermath of the 1973 Flood.

Was this action necessary and what harm was done? To answer the first question, it is important to look at the procedure followed by officials in the wake of the flood. Shortly after the waters subsided, the U. S. Army Corps of Engineers and officials of the Federal Disaster Assistance Agency (FDAA) moved into the state to offer technical and financial services to individuals and communities sustaining flood damage. Stream restoration, one phase of the flood relief program, was specifically directed at restoring the streams to their pre-flood condition as rapidly as possible.

This was an emergency program and did not cover permanent bank stabilization with the importation of rip-rap. In many instances, pre-flood condition meant an unstable position to begin with, thus returning the streams to that condition was unsound and a waste of money. In spite of the fact that damaged areas were inspected by Corps personnel and state and local officials before the allocation of funds, it is apparent that projects were not supervised because of diffused responsibility. This is where the harm was done.

State fish biologists did not have the authority, nor did the Department of Fish and Game have the personnel, to supervise the many restoration projects. The Corps of Engineers and FDAA verified damage claims but were not responsible for overseeing the work. As a result, typical procedure called for the operator of a bulldozer being given the latitude to channel a stream according to his interpretation of Federal and State guidelines. With state gravel removal regulations suspended, the operator went to work scooping out gravel and boulders and piling them up on the stream banks. This resulted in a tragic loss of cover so vital to fish life and miles of aesthetically pleasing streams became straight, shallow channels with unstable banks.

William Jacobus, President of Trout Unlimited, said that there was little his organization could do to halt the operations since stream alteration permit procedures had been waived in the emergency. Jacobus said that many land owners were furious when they saw the results of the flood relief projects bordering their property. The general consensus was that more damage to fishing was done in that cleanup than in the previous 20 years.

Was the action necessary? Who is to blame? Was it the Corps for pouring in money without adequate supervision? Was it the Agency of Environmental Conservation for waiving stream alteration permits and suspending gravel removal guidelines? Was it local officials for not insisting on careful supervision of projects in their towns? It appears that the blame must be shared. The action was not necessary; streams could have been carefully and permanently restored with time and a wiser use of funds.

An encouraging note comes from biologist Claussen who indicated that water has a way of undoing what man has done. Already streams have begun to repair themselves, meandering around the pastures, pushing up the boulders, and forming dark pools where trout like to hide.

TOWNSCAPE PROJECT

The VNRC has embarked upon a project that will help conserve the visual quality of Vermont cities, towns and villages. Aided by grants from the Vermont Bicentennial Commission and a private foundation, the Council will utilize the services of VISION, INC., architectural and planning firm, of Cambridge, Massachusetts. The project will develop in two or three demonstration communities techniques for resurrecting the special character of downtown commercial areas to their original design.

The program will involve architects and designers in the "art of townscape." That is, the revival of the harmonious relationships between the buildings and open spaces that formulate the downtown area so they can again be perceived as a unity. In addition, the objectives of townscape include removing or redesigning store fronts and signs which will reveal the original architectural fabric of the commercial blocks.

The Council believes this project, which will enhance Vermont's man-made environment, is a worthy adjunct to its conservation efforts in the natural environment.

In rural Vermont, perhaps more than elsewhere, the distinction between the natural and the man-made is a tenuous one. The beauty of the state, which is so important to its economic health, lies in its hamlets as well as its hills.

ENVIRONMENTAL APPOINTMENT

Secretary Johnson has announced the appointment of E. Bradford Walker, of Montpelier, as new Director of Forests for the State. Mr. Walker is a graduate of Yale University and the Yale Forest School. He has been chief of Forest Pest Control and an Assistant State Forester.

CORRECTION

The January VER article, "Ski Areas Face Crisis" attributed ski area energy consumption figures to a Development and Community Affairs publication, instead it came from the Vermont Ski Area Association office. (See January VER)

COMMONWEALTH OF VIRGINIA

OFFICE OF THE GOVERNOR

COUNCIL ON THE ENVIRONMENT

GERALD P. McCARTHY
ADMINISTRATOR
P. O. BOX 790
RICHMOND 23206

September 25, 1974

Mr. Kenneth E. Grant
Administrator
United States Department of
Agriculture
Soil Conservation Service
Washington, D. C. 20250

Subject: Emergency Watershed Protection Program
Authorized by Section 216 of the Flood Control Act of 1950
Public Law 81-516 (33 USC 701b-1)

Dear Mr. Grant:

We have completed our review of the Draft Environmental Impact Statement for the subject project. The following state agencies participated in that review:

Division of State Planning and Community Affairs
State Water Control Board
Department of Health
Game and Inland Fisheries
Marine Resources Commission
State Air Pollution Control Board
Virginia Institute of Marine Science
Soil and Water Conservation Commission
Commission of Outdoor Recreation
Department of Agriculture and Commerce
Conservation and Economic Development

Based on the comments we received and our own evaluation of the project we have the following conclusions. We support the intent of the program to clean up and maintain water quality and to improve and protect the human environment after natural emergencies. We have received a number of favorable comments about the program and its past accomplishments and benefits. In the event of future natural disasters, this program can be particularly useful in maintaining water quality

(for use of raw water sources for drinking water, for recreational purposes and for shellfish growing areas.) Please see Appendix I for a more complete discussion of these benefits and attendant suggestions by the Department of Health. Additionally, the program could assist in other water related aspects of rodent and vector control.

Considerable concern has been expressed, however, over several aspects of the program, concerning the means by which the objectives are pursued. Of greatest concern to us is the practice of channelization. Quite a few serious detrimental long-term effects, such as increased probability of down-stream flooding of channelization, have been dramatically exemplified in recent years. Please see Appendix II and III for comments submitted by the Commission of Game and Inland Fisheries and the State Water Control Board for documentation of our concerns.

Our reservations regarding the alternative of channelization in this program, however is not based solely on a one-dimensional examination of beneficial vs. detrimental impacts. We recognize that channelization can be a legitimate tool. Our concern focuses primarily on when, where, and how it is done. These questions have not been addressed to our satisfaction in the past, as exemplified in the comments submitted by the Commission of Game and Inland Fisheries actions following Camille and Agnes. Nor does the program at hand, as described in the Draft Environmental Impact Statement, provide adequately for the participation of others with environmental interests in the process of deciding what particular actions will be taken to address particular problems following emergencies. The State environmental agencies have no assurance of affecting the decisions and actions taken in response to this program. In fact, in many cases they have been unaware of what actually was taking place until it was too late to do anything about it if they did not approve of the action.

There should be a built-in, clearly defined mechanism for communicating and coordinating with a specifically identified list of state agencies to eliminate this. This is especially necessary in order to assure appropriate coordination with the Virginia Outdoors Plan and similar plans of other agencies.

Please note the attached statement recently released by this office regarding this topic. (See Appendix IV.) I would like to place special emphasis on my request for your assurance in the form of a definite and specific procedure for insuring Virginia's active participation in the decision-making process for implementing this program. As noted in my attached statement, participation in the decision-making process is necessary before I will endorse the idea of stream channelization as a clean-up measure. This participation should be on a case-to-case basis as alternative means for cleaning-up particular areas are examined, and should include assurances of adequate supervision to guarantee that the work actually performed is consistent with our expectations. I would be glad to meet with you at your convenience to describe our position in more depth if necessary or to discuss any plans or guidelines you might propose for guaranteeing our participation in this program.

Additionally, we have reservations regarding the potential efficacy of the program in light of the restrictive monetary limitation and prolonged procedure for obtaining supplemental funding. Potential benefits could be lost and adverse impacts of disasters compounded if acceptable plans are unnecessarily delayed.

Other significant comments concern the definition and analysis of the circumstances constituting natural forces prerequisite for emergency assistance.. This is discussed in more depth in the comments by the State Water Control Board. Comments from the Division of State Planning and Community Affairs are also included for your perusal (Appendix V).

In conclusion, if carefully implemented, the program's potentially beneficial consequences should outweigh the adverse ones. We appreciate the opportunity to comment and trust you will give our recommendations your careful consideration. We look forward to hearing from you in the near future.

Sincerely,

Gerald P. McCarthy

Gerald P. McCarthy
Administrator

GPM:dls
Enclosures - Appendix I - V

cc: The Honorable Mills E. Godwin
The Honorable Earl J. Shiflet
Mr. David N. Grimwood
Mr. John K. Abernathy
Mr. Charles Burbach
Mr. J. L. Hamrick
Mr. James McInteer
Mr. Rob R. Blackmore

STATE DEPARTMENT OF HEALTH

Richmond, Virginia

JUN 7 1974

Inter-Office Correspondence

To: Mr. Don M. Ratcliff, Health Planning Consultant
Office of Comprehensive Health Planning

Date: 6/6/74

From: Cloyde W. Wiley, Director
Bureau of Shellfish Sanitation

Subject: Soil Conservation Program
P.E.I.S. for Emergency Watershed Protection Program

The Bureau of Shellfish Sanitation, Virginia State Department of Health, has reviewed the environmental impact statement of the Soil Conservation Service for an Emergency Watershed Protection Program. This program authorizes measures to be installed to safeguard lives and property from floods and the products of erosion whenever fire or other natural disaster causes a sudden impairment of a watershed. The intended results, therefore, are maintaining soil in place and thereby sustaining long-term productivity of the land.

Fires, floods, landslides, and other natural disasters can quickly and totally impair a watershed leaving it void of vegetation and exposed to increased and continuing erosion and sedimentation. Whenever land is damaged by a natural disaster, emergency protection is vital to prevent additional damage which might limit the usefulness of the land in the future.

When an area has been stripped of its vegetation, erosion and surface run-off are greatly increased. These can have disastrous effects on the adjacent water environments. First of all, water quality suffers as surface run-off carries numerous pollutants to the watercourse. These substances, usually weakly bound to organic matter and mud particles, may be released into the water. Since oysters and clams are filter feeders, such materials, many of which may be toxic, could find their way into their body tissues and be concentrated there to levels many times greater than those found in the surrounding waters. In many instances, the results of such exposure are acute or chronic toxicity and tainting of the shellfish. In either case they become unfit for human consumption. Erosion rates of 190 tons/acre/year have been measured on exposed lands and rates of 400 tons/acre/year have been measured from gullies. This means that terrific amounts of sediments and suspended solids, as a result of erosion, will be present in the water. These sediments and suspended solids will drop to the bottom when the current is sufficiently slowed. In areas of heavy siltation, shellfish may be smothered.

In conditions such as these described above, oyster and clam spat cannot survive. In the larval state these organisms are extremely sensitive to turbidity and to the presence of toxic substances. Also, the spat require a clean surface, free of silt on which to attach. In areas where suspended sediments are settling out of the water, this is impossible and high mortality rates result.

Numerous other related problems can and do occur. If turbidities are high, the area in which photosynthesis takes place may be significantly reduced. This would result in a decrease in the dissolved oxygen content of the water. Also, fish and shellfish habitats are degraded considerably, as are their spawning grounds. This could affect the size of future shellfish harvests.

The emergency measure that will be taken most often if this program is instituted is the establishment of a vigorous vegetative cover. This includes the planting of grass, trees, and shrubs and the use of mulch and fertilizer. If such a cover can be established, erosion rates are reduced, surface run-off is reduced, and downstream sedimentation and siltation are reduced. All of these are also conclusive to good water quality and beneficial to shellfish. Other measures which might be used, depending upon the problems encountered, are:

(a) Diversions, dams, and drop structures for non-erosive control of water in roadside ditches and gullies and mechanical protection of exposed roadbanks.

(b) Structural measures such as rock riprap and gabions for mechanical streambank protection.

(c) Removal of sediment and debris from channels and culverts and construction of floodwater diversions.

These emergency measures would also reduce erosion, surface run-off, and downstream sedimentation. Additional beneficial impacts might be the prevention of the contamination of water supplies and of the discharge of untreated sewage. From a shellfish sanitation viewpoint, these measures would also be advantageous.

There may be some adverse environmental effects as a result of the implementation of these latter measures. Shellfish habitat may be degraded by emergency channel clearing, dike construction, and other similar measures. Such action could also temporarily increase turbidity. Construction areas and access routes may be cleared, thus increasing the potential for erosion until vegetative cover can be re-established. These effects, however, should be insignificant when compared to the effects of a flood or other disaster if the measures are instituted before recovery of the post-disaster environment. It should also be noted that certain construction techniques are to be followed to the maximum extent possible during implementation of the emergency measures so as to minimize stream sedimentation.

The major benefit of the implementation of such emergency watershed protection program is in assisting in maintaining land in its present state of development and in preserving natural areas. Its goal is to reduce the threat of increased erosion or flooding and to minimize the effects and not to try to prevent the disaster or stop it. If such control over the extent of the damage to be effected on man and his environment can be attained, then the program will have been successful. If these emergency measures are implemented quickly, the effects of natural events occurring soon after a disaster can be reduced and the environment protected to some degree. It is the opinion of the Bureau of Shellfish Sanitation that this program will be beneficial to shellfish and the shellfish industry of Virginia and approval is unconditionally recommended.

COMMONWEALTH OF VIRGINIA

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Richmond, 23230

CHESTER F. PHELPS, EXECUTIVE DIRECTOR
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BOX 11104
RICHMOND, 23230

JUN 1974
Council on the Environment

June 13, 1974

MEMORANDUM

To: Mrs. Susan T. Wilburn

From: James F. McInteer, Jr.

Subject: Draft EIS -- Emergency Watershed Protection Program Authorized by Section 216, PL 81-516 USDA, Soil Conservation Service

Comments of the Commission of Game and Inland Fisheries regarding the Draft Environmental Impact Statement, Emergency Watershed Protection Program authorized by Section 216 of the Flood Control Act of 1950, Public Law 81-516, follow. Comments are listed under the headings or sections for which they pertain.

Section 1. Description (p.1)

Under 1. Description (p.1), it is noted that the Secretary of Agriculture is hereby authorized in his dicretion to undertake such emergency measures for runoff retardation and soil erosion prevention as may be needed to safeguard lives and property from floods.... The concensus of the Task Force Committee on Stream Rehabilitation, a committee appointed by the Virginia Secretary of Commerce and Resources and comprised of members from four State agencies, was that the definition of what constituted an emergency was overly broad as interpreted by the Soil Conservation Service. Although not specifically charged with interpreting what did or did not constitute a flood emergency in Virginia, a majority opinion of the task force after they made field inspections of proposed SCS Emergency 216 emergency repair work was that in nearly all cases no true emergency existed. Therefore, it is recommended that the definition of what is necessary "to safeguard lives and property from floods" be precisely defined in much greater detail by the Secretary of Agriculture.

The statement, "Whenever a fire, flood, wind, earthquake, landslide or other sudden environmental impairment occurs, the natural watershed physical conditions are drastically altered" (p 1) is incorrect as written. All of the above events are caused by nature and therefore would not constitute alteration of natural watershed physical conditions.

"Section 1 a. Forest fires, landslides and other natural events that leave an area devoid of vegetation." (p 3).

This section is well stated as regards the beneficial value derived from Section 1a activities

"Section 1 b. Severe gully and log road erosion caused by storm water runoff" (p 4). This section is also well stated and documented.

"Section 1 c. "Unstable streambanks caused by floods and erosion forces" (p. 5-8) are in need of modification. In very few instances do floods strip away stream channel vegetation. "Emergency measures" carried out by the SCS following storms Camille (1970--$3,700,00 spent in Virginia) and Agnes (1973--in excess of $2,700,000 spent in Virginia) destroyed more streambank vegetation than was destroyed by flooding. Comments made by the Deputy Regional Director, Federal Fish and Wildlife Service, Bureau of Sport Fisheries and Wildlife, to the Virginia State Conservationist (see attachment - A.1) following field inspections of post-Camille emergency work carried out in Amherst and Nelson Counties were as follows:

"On May 13 (1970) representatives of the Bureau and Virginia Commission of Game and Inland Fisheries made a reconnaissance of this watershed (Buffalo River). It was found that the Buffalo River and the tributaries were being channelized in excess of the work listed in project plans sent to us for evaluation. The channel excavation, according to your staff members contacted in the field, is emergency work being carried out by the Soil Conservation Service to repair streams damaged by the flood that followed Hurricane Camille in the fall of 1969. Channelization has removed submerged logs, boulders, coarse rubble, and most of the streambank cover from the project streams .... Clear streams devoid of instream fish shelter and without bank cover are of little value as game fish habitat."

The Executive Director of the Virginia Commission of Game and Inland Fisheries concurred with the above quoted views expressed by the Bureau of Sport Fisheries and Wildlife.

While the statements extracted from the A.D. Little Report regarding sediments are correct, the overall assemblage overemphasizes the importance of stream bank erosion as a source of sediment. As paragraph 2, page 6, states: "Coarse-grained sediment is produced mainly by channel-type erosion, stream bank and bed erosion." The finer grained sediments more commonly transported to streams through overland wash are more damaging to aquatic life than are coarse grained sediments.

Section 1 c. infers that streambank erosion and slumping is not a natural stream event and is, therefore, bad. It should be pointed out that wandering and meandering of streams via streambank cutting and subsequent sediment

deposition are natural events which help create rich bottomlands. It is only when these activities become excessive that severe damage to aquatic life results. In fact, some streambank cutting is desirable from an ecological standpoint.

Undercut banks provide pool areas, hiding places and contribute to the diversity of stream sediments. At least one study (Water Fluctuation, a detrimental influence on trout streams; Corning, R.V. 1969, Proc, S.E. Assn. Game and Fish Comm.) indicated production of benthic fauna (129 to 149 pounds per surface acre) was highest in an eroding stream zone.

On page 8, the following statement is made: "Vegetative plantings along streambanks are the single most important measures to stabilize streambank erosion." We concur with this conclusion, but feel the sentence should be broadened to say, "Vegetative plantings, consisting of shrubs, trees and grasses, are the most important measures for stabillzing streambanks. Shrubs and trees are usually more important bank stabilizers than are grasses."

Greater elaboration on "other structural measures" p 8, is needed. Substrate materials removed from a stream section and used in the same section as rip-rap material hardly fits the definition of rip-rap, yet most rip-rapping carried out in Virginia through emergency S.C.S. funding was of this type. Materials already shown to be transportable by stream forces of the local area are seldom of sufficient size for accomplishing the purpose of rip-rap, i.e., stabilization of streambanks.

So called "streambank shaping" for purportedly stabilizing streambanks is not mentioned in section 1 c, yet this was a measure used extensively in Virginia. Was this exclusion intended, since environmentalists consider streambank shaping as one of the most destructive measures used (streambank cover is eliminated, it encourages extensive bulldozer work in streambeds, both immediate and long termed releases of sediment result, natural stream configuration is lost, shoreline hiding places are eliminated for fish and other organisms, and until shrubs and trees are replace streambank cutting and widening is more prevalent and of a greater magnitude than if left alone) or was this due to an oversight?

1 d. Stream channels clogged with debris and sediment.
The natural process of sediment and bedload transport by streams is ignored in section 1 d. The distinction between temporary conveyance capacity reduction and permanent conveyance capacities of a natural stream channel has not been made. Materials of many sizes are periodically transported and then deposited by streams. What often appears to constitute a conveyance capacity reduction at the end of one flood event is only a temporary phenomena as the materials will be quickly placed in suspension and transported downstream by the next flood event. To spend money removing these materials would be folly, not to speak of the ensuing environmental damages. It is strongly recommended that activities covered under section 1 d, along with section 1 d itself, be eliminated. The decision as to what does or does not constitute a "clogged" stream is too controversial, while truly threatening reductions in channel capacities would be remedied by other funding sources long before funds could be appropriated and utilized under the guidance of S.C.S. personnel. In any event, the conditions produced by true disasters covered under Section 216 have little to do with residents abandoning their homes and migrating to cities, nor with rural to urban migrations. Therefore, the last two sentences in

paragraph one, page 9 should be struck from the report.

When "clogged" streams cause increased flooding of agricultural lands (paragraph 2, page 9) it might be more practical to change farming practices to those considered more compatible with flood-prone lands. It would be "unnatural" if streams did not occasionally jump their banks and overflow floodbottom lands. Proper floodplain zoning would also reduce dangers to lives and property. Should section 1 d. not be eliminated, the recommended emergency measures should be discussed in detail, statements made defining under precisely what conditions the emergency measures would and would not be employed, and the short and long term detrimental aspects of each measure discussed.

Emergency measures carried out under section 1 d. and 1 c., along with similar emergency measures being carried out by other agencies, prompted the Virginia Commission of Game and Inland Fisheries to adopt the following policy:

WHEREAS stream channelization (whether termed channelization, stream improvement, stream bank shaping or emergency flood control) has been found to alter the physical, chemical and biological regimes of streams in ways highly destructive to stream inhabitants, water way dependent wildlife, stream and stream bottom ecology, sport fishing and related recreational values, as well as natural esthetics; and WHEREAS the adoption of land use regulations can help allocate flood prone lands to their most appropriate uses, thereby preventing private and public landowners from burdening other landowners and the public with losses incurred as a result of unwise developments on these lands at the expense of our natural and economic resources; and WHEREAS the Virginia Commission of Game and Inland Fisheries is charged with protecting the inland fish and wildlife resources of Virginia from needless waste and destruction; therefore be it RESOLVED that the policy of the Virginia Commission of Game and Inland Fisheries shall be to vigorously oppose stream channelization and related practices, except under the most exceptional of proven circumstances.

The concern created by the section 1 d. and section 1 c. type of activities is further outlined in a memorandum from Mr. James Moore and Mr. James Ryan, Jr., Assistant Attorneys General, dated December, 1973, and addressed to Dr. Allan Hoffman, Chairman of the Commission of Game and Inland Fisheries and to Dennis Brion, State Water Control Board:

"It is our understanding that locally managed federally funded channelization projects, which are undertaken as emergency flood or disaster cleanup efforts, are resulting in severe damage to the aquatic habitats of many of the streams in the Commonwealth. It is our further understanding that the Commission and the Board are desirous of exerting control over the conduct of such channelization projects to the end that damage to those habitats which resulted from such in-stream work is minimized."

Because a substantial portion of the funds expended under Section 216 have been spent in Virginia between 1969 and 1973 (more than $6,000,000) we feel our apprehensions concerning sections 1 c. and 1 d. should be given considerable weight. Probably more activities covered under sections 1 c. and 1 d. were carried out in Virginia than in any other State in the nation between 1969 and 1973.

Section 1 e. Damage to existing dams or dikes which pose an imminent threat to lives and property.

This section, like Section 1 c, overemphasizes the amount of vegetation along streambanks that is lost through excessive flood stages. If the proper streambank vegetation is present, i.e., shrubs and trees, largescale losses of bank vegetation would not be expected, except under the most major of catastrophies, i.e., extremely large dams giving way. Significant long term degradation of downstream fishery habitat would not be expected either, except under the above outlined conditions. Even under the most severe dam breakage conditions, good stream side cover would prevent any but minimal damage.

The last portion of the last sentence on page 9 should have the following reference eliminated, since this section refers to "Damage to existing dams and dikes;" "and realignment of flood channels which may be encroaching on developed flood plains." Section 1 c. would be a more appropriate place for this comment. Wherever the comment is stated, it is recommended that the statement be qualified to state that realignment of flood channels would be held to a minimum and efforts made to establish the channel as nearly as possible to previous dimensions.

1 f. Implementation of the emergency watershed protection program. Implementation instructions, as outlined in Watersheds Memorandum-124, are considered inadequate. Many of the comments made in other sections, especially precise definitions of what constitutes an emergency, precise definitions of accepted and non-accepted practices, and detailed guidelines sections should be incorporated into the basic Memorandum - 124.

Paragraph two, pertaining to sponsoring organizations, should be broadened to bring in environmental interests as a necessary part of sponsoring organizations, since it is the sponsoring organizations that recommend priorities.

It is true that this environmental statement cannot deal with quantitative assessments of emergency measures to be installed. For this reason, it is imperative that authorities and regulations be written as precisely as possible and in enough depth so that only the absolute minimum of emergency work is carried out. All other activities should appropriately require normal environmental impact procedures before being accomplished.

Further, the Virginia Commission of Game and Inland Fisheries objects to the filing of a single environmental statement to cover all future Section 216 activities. Since this environmental statement cannot deal with quantitative assessments, and because many emergency activities could produce severe environmental damage if carried out improperly or unjustifiably under improperly written guidelines, it is recommended that the Council on Environmental Quality require an annual refiling of an environmental statement for Section 216 activities. Annual filing would assure that field guidelines, etc. were revised as new information, techniques and abuses were discovered. It would also assure that the general public and other agencies had an opportunity to review and influence future field activities. Physical, biological and chemical studies should also be required as an on going Section 216 activity in order to determine and evaluate positive and negative aspects of emergency work prior to any given emergency.

Paragraphs one and two, page 11, stress vegetative cover as the prime objective of Section 216 activities. However, very little of the more than $6,000,000 expended in Virginia under this program following hurricanes Camille and Agnes was spent for re-establishing vegetation.

No monies of the $3,700,000 expended following hurricane Camille were used for re-establishment of shrubs and trees. Only after requests for shrub and tree plantings were made by the State Task Force Committee on Stream Rehabilitation and by the Virginia Commission of Game and Inland Fisheries did the S.C.S. agree to the planting of shrubs and/or trees (willows) using Section 216 funds. Perhaps the intent of the S.C.S. in regard to revegetation following flooding has been changed since early 1973. If not, revegetation statements should be deemphasized as to usage following flooding.

Paragraph three, page 11, beginning "The following construction techniques are used to minimize stream sedimentation..." stresses special techniques to be employed. However, two of these recommended procedures were habitually violated in 1973 during work in Virginia; 1) work from one side only, and 2) maintain natural vegetation and streambanks to the fullest extent. A film documentary of emergency activities carried out in Amherst and Nelson counties of Virginia partially substantiate this statement (see attachment A-2). A letter regarding proposed work on the Rockfish River is also being provided as partial substantiation (see attachment A-3).

The sentence beginning, "The Bureau of Sport Fisheries and Wildlife, the Environmental Protection Agency, state fish and game agencies, and other appropriate environmental interest(s) are invited to participate in the emergency watershed protection program.", is unacceptable. Being invited to participate and having an actual influence on decisions made by the S.C.S. are not necessarily the same. The following letters are submitted in order to shed some light on these difficulties (attachments A-4, A-5, A-6). A controlling influence by environmental groups and agencies at all levels, including command decisions, must be felt as an integral part of Section 216 activities if environmental interests are really to be safeguarded. This statement should be revised to define a more appropriate role for environmental interests as well as procedures for settling differences of opinion. Guidelines should be developed ahead of time with active participation of all groups. Once guidelines are are established they should be implemented at the lowest ground level.

Paragraph 2, page 12 - Comments regarding Hurricane Camille contracts for removing obstructions and restoring the capacity of impaired streams and the excessive environmental damage that resulted has already been outlined in comments on Section 1 c. However, they are reemphasized by the attached newspaper clipping dated December 3, 1972 (see attachment A-7).

Paragraph 4, page 12.- Because of controversial emergency work being carried out in Virginia as a result of Hurricane Agnes, a special Task Force Committee on Stream Rehabilitation was appointed by the State Secretary of Commerce and Resources. Overall conclusions of this committee are outlined in the attached article entitled, "Ecology Unit Asks Power to Enforce" (see attachment A-8).

2 c. <u>Environmental impacts resulting from installation of streambank stabilization by planting vegetative cover or use of mechanical protection</u>.

Adverse impacts are not adequately covered in this section, especially in regard to streambank grading and shaping. Some of these impacts are outlined in the comments regarding Section 1 c. This section should state as possible detrimental impacts: excessive use of emergency measures; inappropriate use of measures; improper interpretation of guidelines by heavy equipment operators, other field workers, and supervisory personnel, and; inadequate supervision of field personnel.

Temporary and permanent removal of stream cover, loss of stream graded substrates, temporary and/or permanent changes in pool-riffle ratios, and possible temporary and permanent reductions in aquatic life and diversities should also be cited as potential environmental impacts.

2 d. Environmental impacts resulting from installation of channel debris and sediment removal, floodwater diversions, open channel and debris basins. Further additions regarding possible detrimental changes in physical, chemical and biological parameters are needed in this section. A few of the parameters neglected are possible changes in flow rates, stream widths, stream depths, cover, substrate compositions, pool-riffle ratios, species diversities, abundance of organisms, allochonthous inputs and chemical qualities. The probability of increased downstream flooding as a result of overzealous interpretation of emergency repairs should be stressed, along with the fact that removal of "clogged" stream blockages increases the possibility of downstream flooding.

2 h. Summary of adverse environmental effects which cannot be avoided. This section should be expanded to include new additions to other sections.

5 a. No program.
It has already been advocated that section 1 d. activities be dropped from the program. However, this request is being restated at this time.

Overall, it is concluded that where flood repair activities are concerned, fish and wildlife of Virginia would have fared better without any section 216 funded activities being carried out in the State. Further, it was a majority opinion of the Task Force Committee on Stream Rehabilitation and of the Commission of Game and Inland Fisheries, that monies would have been better spent for permanent installations, revegetation work and in modifying existing flood plain uses so that emergency flood damage repairs would no longer be nesessary.

5 c. Land use changes and flood plain management measures.

We take exception to paragraph 3, page 23. Land use changes and flood plain management could lessen environmental impacts on humans rather than create severe impacts. Over an extended period land use changes and well thought out flood plain management plans could greatly lessen losses of human life, costly expenditures for flood damage repairs, and endless forced relocation of people after floods. Good land and flood plain management practices would also effectively reduce resources of capital, manpower, fuel and equipment needed to produce equivalent amounts of food and fiber.

Paragraph 1, page 24 - Cost of providing land use changes and flood plain management aspects might increase several times the amount used for the existing

emergency watershed protection program, but positive aspects would be more lasting, environmental damages lessened, and long term expenditures probably would be reduced.

5 d. Increased funding of the existing program.

Expanded funding for this program would mean increased work carried on outside normal environmental safeguards. Many of the activities carried out under this program are controversial and appropriately should fall under close scrutiny,by Congress and by governmental agencies responsible of protection of the environment.

5 e. Existing emergency watershed protection without sediment and debris removal, streambank stabilization and open channel measures. Positive values of this alternative have not been adequately covered in the statement nor have the stated adverse effects been adequately documented. Types of activities carried out in Virginia, but which would have been excluded under this alternative, may have led to increased future downstream flooding. If so, deletion of these measures would have the opposite effect from those outlined in the statement.

Elimination of the above listed measures, coupled with certain other alternatives such as flood plain zoning and employment of more appropriate land uses is yet another alternative not explored.

6 Consultation with appropriate federal agencies and review by state and local agencies and public involvement.

Thoughts on this section have already been expressed. However, in restatement, past consultative and review procedures were deemed inadequate in Virginia, and coordination efforts proved difficult under available guidelines and procedures. Initially, work was carried out without consultation with various state agencies. Precise language outlining the roles various agencies and groups will play in decision making and in settling differences is required. Someone other than those who have access to the federal emergency purse should have the power of ultimate veto, otherwise the machine is all throttle and no brake--a situation worthy of grave misgivings by both passengers and pedestrians.

cc: Dr. A. Hoffman
J.M. Hoffman
State Water Control Board
State Soil and Water Conservation Commission
Virginia Outdoor Recreation Commission

United States Department of the Interior
FISH AND WILDLIFE SERVICE
BUREAU OF SPORT FISHERIES AND WILDLIFE
PEACHTREE-SEVENTH BUILDING
ATLANTA, GEORGIA 30323

A-1

August 17, 1970

SCS-Va. (Buffalo River)

Mr. Tom F. McGourin
State Conservationist, Soil
Conservation Service
Richmond, Virginia

Dear Mr. McGourin:

The Bureau of Sport Fisheries and Wildlife in cooperation with the Virginia Commission of Game and Inland Fisheries, has reviewed your plan for the Buffalo River Watershed project, Amherst County, Virginia, to determine possible effects on fish and wildlife resources. This letter constitutes our report on the project, prepared and submitted in accordance with the provisions of Section 12 of the Watershed Protection and Flood Prevention Act (68 Stat. 666, as amended; 16 U.S.C. 1008).

Project plans call for the construction of two floodwater-retarding structures, two multiple-purpose reservoirs to provide storage for water supply, and approximately 3 miles of stream channelization (plate 1). The impoundments will have a total sediment pool and flood pool area of 387 acres and 679 acres respectively. It is our understanding that all of the proposed reservoirs will be owned by the county and that fisherman access will be provided.

Our 1968 James River survey[1] classified the North and South Forks of the Buffalo River as trout feeder streams. Native trout are also found above the proposed reservoir site on Thrashers Creek, a tributary stream. From the confluence of North and South Forks to where it crosses U.S. Highway 60, the Buffalo River was listed as a trout stream with 75 to 100 percent bank shade, and a stream bottom of boulders, rubble, and gravel. Downstream from the U.S. Highway 60 bridge to U.S. Highway 29, the Buffalo River was listed as a bass feeder stream, with 50 to 75 percent bank shade and a stream bottom of coarse rubble, gravel, and sand. About 6,000 brook and rainbow

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1. U.S. Department of the Interior, 1968. Fish and Wildlife Resources as Related to Water Pollution, Chesapeake Bay and Tributaries (Except Susquehanna River Basin). 183 pp.

trout have been stocked annually in the lower section of the North Fork of the Buffalo and some of these fish commonly drifted into Buffalo River down to the impoundment site. The stocked area has provided an estimated 2,000 man-days of fishing annually. From the U.S. 60 bridge to U.S. 29, the Buffalo River supported smallmouth bass, other sunfishes, suckers, and chubs. Stonehouse and Mills Creeks, on which dams are also planned, are tributaries of the Buffalo River that probably did not support significant populations of fish.

On May 13, representatives of the Bureau and Virginia Commission of Game and Inland Fisheries made a reconnaissance of this watershed. It was found that the Buffalo River and the tributaries were being channelized far in excess of the work listed in the project plans sent to us for evaluation. The channel excavation, according to your staff members contacted in the field, is emergency work being carried out by the Soil Conservation Service to repair streams damaged by the flood that followed Hurricane Camille in the fall of 1969. Channelization has removed submerged logs, boulders, coarse rubble, and most of the streambank cover from the project streams. Work had progressed from the forks of the Buffalo to a point downstream from State Highway 156. In this area, Buffalo River and tributaries have been widened and straightened to the extent that they are now one long, shallow, riffle area. It is the opinion of this Bureau that previously described fish habitat in these streams has been destroyed and that these streams should now be reclassified as sucker type habitat. Clear streams devoid of instream fish shelter and without bank cover are of little value as game fish habitat.

Wildlife resources of the watershed include deer, wild turkey, bobwhite, squirrel, rabbit, and fur bearers. A few mallards nest along the project streams and other migrating ducks occasionally use them. There is little brushy cover within the impoundment sites, because the land is cleared for agriculture and wildlife habitat along the streambanks has been destroyed in areas where the emergency dredging work has been completed. In general, the project-affected area is of low value to wildlife.

We find it rather academic to evaluate the impact of the proposed project in view of the gross damages already incurred by the "emergency dredging work." We understand the need for removal of the large piles of rubble and debris that resulted from Hurricane Camille. The need for extensive upstream channelization has not been explained nor was the Bureau consulted before the work was undertaken.

The proposed impoundments will provide temporary reservoir fishing opportunity. It appears that a problem will result from sediment arising in the channelized reaches above these reservoirs. This could very likely shorten the life of these reservoirs. In addition, expected warm-water fish populations in the reservoirs may damage remaining trout habitat on tributaries in the headwaters as a result

of centrarchid invasion. Weirs should be installed to prevent this occurrence. Inundation of 367 acres of low value wildlife habitat is not expected to have significant detrimental effects on wildlife resources in the watershed. The reservoirs will provide resting habitat for some migratory waterfowl.

We are concerned that the emergency channel excavation on the Buffalo River and other storm-damaged streams has not been coordinated with this Bureau and State fish and game interests. There is a growing interest in our Nation in preventing publicly funded projects from damaging fish and wildlife resources. This is reflected in the recent passage of the National Environmental Policy Act of 1969 which requires all agencies of the Federal Government to include in every recommendation or report on proposals: (1) a detailed statement on the environmental impact of the proposed project, (2) any adverse environmental effects which cannot be avoided should the proposal be implemented, and (3) alternatives to the proposed action.

In view of the impact of the emergency dredging work and the proposed project, the Bureau recommends that:

1. Plans for emergency dredging projects be coordinated with both State and Federal fish and wildlife agencies.

2. Weirs be constructed on Buffalo River and Thrashers Creek above the reservoir headwaters to prevent centrarchid invasion of trout habitat.

This report has been reviewed and concurred in by the Virginia Commission of Game and Inland Fisheries and a copy of Executive Director Phelps' letter is attached.

Thank you for the opportunity to comment on the project. It is requested that we be advised of actions taken on our recommendations.

Sincerely yours,

W. L. Towns
Deputy Regional Director

A-2

May 9, 1974

Film made of N lson Co. streams to show dangers of channelizing

By DAVID D. RYAN
Richmond Times Dispatch

About this time last year, a small plane was flying up the Tye River in Nelson County. On board were the pilot, a professional film cameraman and Newton H. Ancarrow, a Richmond conservationist.

"All the time we were going down (low over the river), I kept hearing this buzzing noise," Ancarrow recalled. "Later I asked him (the pilot) what that noise was. 'Oh,' he said, 'that was just the stall speed indicator.'"

But, added Ancarrow, the fright of flying slower than the plane should have been didn't really hit him until later, when the three men discovered the camera had jammed and the scene would have to be reshot. "That was probably the first time I sensed panic. I wanted to get out, but there was no way to go...," he said.

A similar slow-speed, low flight had earlier been made over the Crabtree Falls on the Tye, Ancarrow recalled.

"He flew right at the Crabtree Fall's and banked that thing up . . . We were so low that I could distinguish the leaves on the ground. I recalled that someone had told me there had been 17 persons who had died at the falls over the years. And boy, I thought we were going to make it an even 20.

"The day I flew over those rivers (the Tye and Rockfish) is the day I found that I got old," Ancarrow said.

The reason for the flight was to take footage for what has now become a 37-minute documentary "The Raging James: An Essay on Channelization."

The final product, produced and paid for by Ancarrow, is a powerful film showing how some of Virginia's most beautiful rivers in the James River basin have been torn and scarred by flood cleanup carried out by several federal agencies, including the Army Corps of Engineers and the U.S. Soil Conservation Service.

had been channelizated are covered in the film, all of which he has documentation for from various federal agencies involved in the work and other sources.

To produce the final film, which contains 2,077 feet, 10 times as much film was shot. The project cost about $3,000, he said.

Asked what he is getting out of the film, he answered, "personal satisfaction. If I can see this thing through to fruition, it will prove the system works that one person can get mad and scream about it."

The film is well-documented, and, although an obvious attempt was made by Ancarrow to present a balanced picture, some viewers of the film may be left with the feeling the film is slightly weighed toward the environmentalists. (Officials of the Corps and the SCS rejected requests to appear in the film to explain their programs and the reasons the alterations of the river were carried out.)

The film shows bulldozers scraping stream bottoms, cutting out the natural curvature, and the resulting sedimentation and loss of vegetation. There are statements from approximately a dozen experts explaining the adverse effects that can occur from channelization.

Ancarrow appears throughout the film, citing figures and documentation to back up his basic point that channelization, if handled poorly and without direction, can have "disastrous" effects.

He stresses, however, that channelization is a legitimate tool, if its use is controlled by "realistic guidelines that should be enforced instead of ignored."

He began working on the film, he said, after several persons from around the state, particularly from the upper James basin, called him to complain about the damage that was being done to the rivers by channelization work. Ancarrow has had a reputation for a number of years as a fighter for preserving and cleaning up the state's rivers, particularly the James. And the previous fall and winter, he had become well-known for taking the Army Engineers to federal court to stop flood cleanup here that he and others felt unnecessarily damaged many of the river islands.

After the calls of complaint, Ancarrow said he couldn't imagine that the damage he felt was being done here was also occurring elsewhere. He requested a friend at the University of Virginia to show him where the channelization was occurring in Nelson County. "I began to see what had happened. Then I began to nose around, and . . . I found it wasn't just the Piney and Rockfish (rivers); it was everywhere," he said.

He estimated that about 1,000 miles of streams and rivers had

A-3

COMMONWEALTH OF VIRGINIA

OMMISSION OF GAME AND INLAND FISHERIES
4010 W. BROAD STREET
RICHMOND, VA. 23230

245 COLONNADE DR., APT. 1
CHARLOTTESVILLE, VA. 22901
AUGUST 6, 1973

MR. WARREN FRIEND
SOIL CONSERVATION SERVICE
P.O. BOX 470
AMHERST, VA. 24521

DEAR MR. FRIEND:

THE PROPOSED PLAN FOR THE ROCKFISH RIVER WAS REVIEWED AS PER OUR PROJECT PLANNING RESPONSIBILITIES AS OUTLINED IN WATERSHEDS MEMORANDUM VA-19. CHANNEL MODIFICATION IN AREA 3 AROUND THE ROUTE 634 BRIDGE SHOULD SUBSCRIBE TO THE VA-19 GUIDELINES AND NOT TO HIGHWAY SPECIFICATIONS. THIS ADHERENCE TO GUIDELINES SHOULD MINIMIZE STREAM HABITAT DEGREDATION. WE HAVE NO FURTHER OBJECTIVES TO THE PLAN IF OUR CONCEPTION OF THE PLANS IS NOT W WIDELY DIVERGENT FROM S.C.S. INTENT.

SINCE REVIEWING SCS REHABILITATION OF THE BUFFALO RIVER WE FIND SEVERAL POINTS UPON WHICH WE SHOULD COMMENT. THE EXTENT TO WHICH THE CHANNEL WAS REALIGNED ABOVE U.S. 60 AND THROUGH THE SALES PROPERTY WAS UNJUSTIFIED. WE WOULD HAVE STRONGLY OPPOSED SUCH WORK DURING ADVISORY TEAM MEETINGS HAD WE RECOGNIZED THE TRUE INTENT OF THE WORK PLANS DEVELOPED FOR THE AREAS. IN MANY AREAS THE UNCONSOLIDATED BANKS CREATED AS A RESULT OF THE REHABILITATION WORK REMAIN UNSTABLE AND CONTINUE TO SLIDE INTO THE STREAM.

AS A RESULT OF THE BUFFALO RIVER REVIEW, I MUST EXPRESS CONCERN THAT STREAM CHANNEL EXCAVATION IN WORK AREAS 1,5, AND 7 OF THE ROCKFISH COULD RESULT IN A NEEDLESSLY STRAIGHTENED RIVER CHANNEL. WE URGE THAT EXCAVATION BE ABSOLUTELY MINIMAL SO AS TO RETURN FLOOD FLOW CAPACITY TO PREFLOOD CONDITION. ALSO, ADDITIONAL EFFORT SHOULD BE MADE TO STABILIZE SLOPED STREAM BANKS WITH PLANTINGS OF BASKET WILLOW OR OTHER WOODY PLANTS, AS THIS IS ALLOWED IN KENNETH GRANT'S WM-124 OF NOVEMBER 9, 1972. RECENT REVIEWS CARRIED OUT BY THE STATE ADVISORY COMMITTEE UPHOLD THE COMMISSION VIEWPOINT THAT CHANNEL CAPACITY IS DEFINED AS THE VOLUME OF WATER THAT CAN BE TRANSPORTED IN THE CHANNEL UP TO A POINT WHERE THE WATER LEVEL EXCEEDS STREAM BANK(S) AND ENTERS THE FLOOD PLAIN.

SINCERELY,

21

JOHN KAUFFMAN
RESEARCH BIOLOGIST

COMMONWEALTH OF VIRGINIA

COMMISSION OF GAME AND INLAND FISHERIES
4010 W. BROAD STREET
RICHMOND, VA. 23230

Route 8, Box 19
Fredericksburg, Virginia 22401
May 16, 1973

Mr. R. V. Corning
P. O. Box 519
Tappahannock, Virginia 22560

Dear Ray:

I have received Mr. Kidd's response regarding my proposed changes to the "216" work planned for the Rapidan River in Madison and Orange Counties and Swift Run in Greene County (see attached).

This correspondence from Mr. Kidd formalizes the assumption by SCS of the flexibility to make major on-site work decisions "immediately ahead of the equipment". Further, the few changes which we recommended were made to no avail: "We see no reason to change our plans on these." Neither of these positions adhere to the intent or letter of the guidelines which were developed to avert environmental damage during "216" implementation. Thus, our imput has been subverted by SCS to the level of an unheeded minority opinion on their work plans; plans which are usually totally embraced by the extremely lopsided make-up of the local advisory committees.

I fully realize the positive effects MEMORANDUM VA-19 has had on SCS operations. Now the document upon which VA-19 was founded, seems in serious jeopardy and we stand to lose these recent and so appropriate gains. This would be so tragic.

Because of their cavalier treatment of our imput, I am now wondering if we should continue to expect our field men to submit to the difficult circumstances presented by meetings of the local advisory committees as they are presently constituted. In the past, attendance was made tolerable only by the sure knowledge that our imput was contributing to the protection of our diminishing aquatic resources.

Sincerely,

N. S. Prosser
Supervising Fish Biologist

NSP:kl

COMMONWEALTH OF VIRGINIA

COMMISSION OF GAME AND INLAND FISHERIES
4010 W. BROAD STREET
RICHMOND, VA. 23230

Route 8, Box 19
Fredericksburg, Virginia 22401
June 13, 1973

Mr. Raymond V. Corning
Fish Management Field Coordinator
Box 519
Tappahannock, Virginia 22560

Dear Ray:

There are two items relative to the "216" guidelines which need clarified, refined or altered.

First, the SCS has assumed authority to make work decisions after the local advisory committee has reviewed the rehabilitation plans. This position is rendered in Mr. Kidd's correspondence relative to work in Madison, Orange and Greene Counties. As I stated in earlier correspondence, this assumption of authority by SCS to make unilateral decisions effecting Virginia's aquatic resources violates the intent of the task-force-developed guidelines, and should be clearly, and specifically minimized.

Second, the Game Commission viewpoint has been subjugated by SCS via VA-19 as representing only one opinion among many equal opinions during meetings of the local advisory committees. I quote the guidelines as developed by the task-force membership: "Decisions for work exceeding these limits [guidelines] would require agreement between the designated representative of the Commission of Game and Inland Fisheries and the Soil Conservation Service." Now I quote from Mr. Grimwood's Memorandum VA-19: "Changes suggested and generally concurred in by this [local advisory] team should be made if they are within authority and policy of the Act and in keeping with procedures and guidelines contained below." The wording "generally concurred in" mandates democratic rule. We embrace democratic rule if the advisory committees are democratically constituted.

I have reviewed (subject to errors of memory recall) the local committees as they were formulated for the Orange, Madison, Greene, Nelson and Amherst County meetings. Categorizing the membership by vocational viewpoint, I derive a 3.6:1 positional ratio regarding the SCS rehabilitation plans.

In this tabulation, agency positions were grouped so that the SCS, ASCS, Soil & Water Conservation District, local county political officials, VPI Agriculture Extension Agent, and concerned farmers were in one category while ourselves and the Virginia Division of Forestry representatives were placed into the second category.

Are the SCS people so infallible as to present five perfect rehabilitation programs for the above counties? I ask the question in a rhetorical sense as only one exception (Orange County) was made except by ourselves although a total of twenty-six individuals (excluding Game Commission and SCS representatives) attended these meetings.

There are two additional statements from VA-19 which I should like to quote. Paragraph E. states that: "the 'Advisory Team' [will] participate .... to help plan the necessary work" (emphasis provided). In fact, in almost every instance, the rehabilitation plans as presented to the local advisory committees by SCS were not changed in response to our representative's suggestions. We were not permitted to help plan the work.

Further into paragraph E. one finds the statement: "The Commission of Game and Inland Fisheries .... should, however, be invited to review all jobs so that they will have an opportunity to express their opinion and a special effort made to get their concurrence in plans that may deviate from the following guidelines" (emphasis provided). Often very special efforts were made to pressure our representative to concur with the SCS plans. When this failed, SCS began merely to ignore our suggestions. This subversion of our responsibilities to the rehabilitation work-plans seems to have become increasingly concrete as the weeks passed.

Sincerely,

Norville S. Prosser
Supervising Fish Biologist

NSP:kl

cc: Jack Hoffman
John Kauffman

COMMONWEALTH OF VIRGINIA

COMMISSION OF GAME AND INLAND FISHERIES
4010 W. BROAD STREET
RICHMOND, VA. 23230

Route 6, Box 19
Fredericksburg, Virginia 22401
May 2, 1973

Mr. Garland Kidd, District Conservationist
Soil Conservation Service, USDA
P. O. Box 147
Madison, Virginia 22727

Dear Mr. Kidd:

Our appraisal of the "216" rehabilitation work plans for Swift Run in Greene County and the Rapidan River in both Madison and Orange Counties is as follows:

Obvious discrepancies exist between the formal work plans which you filed and your verbal statement of probable compliance with these plans. I would use as an example, item IV-1 of your work description for Swift Run in Greene County and the Rapidan River in Madison County. This statement of work proposed reads: "Removal of vegetative debris and fallen trees that block or divert the stream and unstable trees with undermined root systems. Trees to be marked by SCS and removed to a safe point for disposal by the landowner." Marking of trees selected for removal is recommended in the rehabilitation guidelines which were incorporated into WATERSHEDS MEMORANDUM VA-19.

When asked about the lack of any visible marking on trees to be destroyed, you stated that you did not intend to comply with this stipulation on the basis of: (1) you intended to retain operative flexibility so that during actual on-site work, your staff could select those trees which would be destroyed, and (2) you did not have the time or staff to mark trees which would be cut.

We agree that under certain circumstances, slight modification of individual work plan items may be necessary. We do not agree that the "across-the-board" assumption of the degree of flexibility which you and Mr. McDowell profess, is appropriate. The effect of this position by SCS could effectually emasculate any input by the local advisory committee.

A1-P0015

We have encountered no difficulty in having problem trees identified and marked by SCS staff in other disaster counties.

We concur with the vast majority of work as presented to the advisory teams. In fact, of the 50 individual work locations in the 3 counties, we should like to see specific changes in only 3.

More specifically, site number 10 of the Swift Run rehabilitation proposal does not, in our opinion, require excavation. Pre-flood capacity has not been reduced by gravel deposits. The better alternative would be to stabilize the flow in its present location. The placement of rip-rap, obtained from an off-site source, may be advisable to protect the left side of the stream bank.

Site 9 and the downstream area of site 24, of the Rapidan River plan in Madison County do not require excavation and would better be served by stabilizing eroding banks as necessary with stone from an off-site source.

The work proposed for the Rapidan River in Orange County should be revised to eliminate the removal of any live, standing trees. These trees were to be cut to facilitate the removal of flood-deposited woody debris. As discussed by the advisory team, this action is probably not warranted.

Sincerely,

Norville S. Prosser
Supervising Fish Biologist

cc: R. V. Corning

WASHINGTON MERRY-GO-ROUND

From UNITED Feature Syndicate

Wool-and-Mutton Men
Seek Poison Ban Lift

Sunday, December 3, 1972

By Jack Anderson

WASHINGTON.

FISHING FOUL-UP

Federal money intended to restore fishing streams damaged by Hurricane Camille in 1969 was actually expended by the Agriculture Department to dig muddy canals that completely ruined the streams.

Not only did the government ruin the streams, but the "flood control" canals made flooding even worse during Hurricane Agnes this year.

This saga of compounded goofs is monumental even in a department noted for its blundering. Small wonder, therefore, that the pertinent documents are hidden in official files. Nevertheless, we have obtained copies which describe the dismaying details.

In the wake of Hurricane Camille, Agriculture began building "flood control" channels in Virginia at a cost of $3 million in funds that were supposed to be spent to restore fishing streams. When inspectors from the Interior Department's Fish and Wildlife Service and Virginia's Game Inland Fisheries slogged through the mud to see how the project was coming along, they were horrified.

Complained W.L. Towns, deputy regional director of Fish and Wildlife, in an indignant letter to the Agriculture Department: "Wildlife habitat along the streambanks has been destroyed in areas where the emergency dredging work has been completed." This had driven away the "deer, wild turkey, bobwhite, squirrel, rabbit and furbearers," he lamented, along with the trout that had formerly lived in the unspoiled water course areas.

Now, he said, "we find it rather academic to evaluate the impact of the...project in view of the gross damages already incurred by the 'emergency dredging work.'" What was once prime fishing "should now be reclassified as sucker type habitat."

BEFORE THE HURRICANE

In a return letter, Agriculture's Tom McGourin retorted that the channelization "is for the purposes of preventing further damages to life and property from floodwater, erosion and siltation." Undeterred, Agriculture went ahead with its "antiflood" work on more than 30 streams.

Then Hurricane Agnes hit.

Assessing the damage, Virginia's Fish Management Coordinator Raymond Corning reported that the project had left "streams extremely vulnerable to excessive erosion by major floods...."

As Corning detailed it, streams jumped from the channels and "silt, sediment and rubble scoured from a stream bed and stream bank were deposited on fields."

Yet, incredibly, Agriculture is going back to its channelization work again. Indeed, some previously untouched streams will be dug up.

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Ecology Unit Asks Power to Enforce

By David D. Ryan

A group of state officials told an aide to the governor here yesterday that their efforts to minimize environmental damage during stream channelization are hampered without enforcement powers.

The four officials told Maurice B. Rowe, secretary of commerce and resources, that a permit system is needed to control the stream projects.

"What you are saying basically is that we need some statewide permit system that can be enforced by an agency, regardless of whether the project is an emergency or non-emergency," Rowe said in response to the officials' comments.

Those meeting with Rowe were Joseph B. Wilson Jr., director of the state Soil and Water Conservation Service, Michael A. Bellanca, director of the State Water Control Board's Bureau of Surveillance and Field Studies; Ray Corning, fish management coordinator for the Commission of Game and Inland Fisheries, and Gerald L. Stokes, a planner with the Outdoor Recreation Commission.

They were designated by Rowe last winter to work with the federal Soil Conservation Service to oversee controversial channelization projects that the conservation service was conducting in conjunction with an "emergency" flood cleanup as a result of two floods last year.

After an hour meeting, the task force officials and Rowe decided to:

—Wait for a review by the attorney general's office on whether the water control board can require permits for stream channelization projects. If such permit authority exists, the committee insisted that it should give localities help in planning the projects and in following up in the field.

— Review all programs that would allow stream work in order to determine how many projects should be the concern of the committee, and what other state agencies should have representatives on the task force. The Virginia Marine Resources Commission and the Virginia Institute of Marine Sciences were mentioned.

— Begin an extensive program on the local level to educate landowners about the potential damage that can occur from channelization, which involves everthing from clearing debris from streams to widening and deepening a stream to increase the water capacity it or the drainage area can hold.

Tax Views Explained By Howell

Commonwealth of Virginia

STATE WATER CONTROL BOARD

P.O.Box 11143, 2111 N. Hamilton St., Richmond, Va. 23230 (804) 770-1411

IN REPLY, REFER TO: 3

BOARD MEMBERS

Noman M. Cole, Jr.
Chairman
J. Leo Bourassa
Denis J. Brion
Basil T. Carmody
Ray W. Edwards
Mrs. Wayne Jackson
Andrew W. McThenia, Jr.

June 19, 1974

Ms. Susan T. Wilburn
Environmental Impact Statement Coordinator
Council on the Environment
Eighth Street Office Building
Richmond, Virginia 23219

Re: Draft Environmental Impact Statement-
Emergency Watershed Protection Program
Authorized by Section 216 of the Flood
Control Act of 1950, Public Law 81-516
(33 USC 7016-1)

Dear Ms. Wilburn:

We have completed our review of the above referenced statement and would like to submit the following comments:

We recognize the economic, environmental, and safety dangers present under post-disaster conditions and realize the need for a program of action to eliminate these dangers. We do, however, have reservations with the program proposed here and specifically with the alternatives.

The alternatives are presented for the selection of one program over another. An emergency watershed protection plan should be so designed to allow first an analysis of the post-disaster conditions. Then, depending on the specific situation, appropriate actions would be recommended. This recommended action may be flood plain management, structural measures, channel clearing, or any other action or combination of actions. In deciding to select one course of action beforehand such flexibility is eliminated. However, in considering the alternatives proposed, the course of action, as outlined in the program, is the most viable with respect to management of resources, prevention of further watershed degradation and protection of lives and property of persons within the affected area.

Based on the magnitude of the damages that have occurred

during the floods caused by Hurricanes Agnes and Camille in Virginia, we feel that a complete watershed protection and flood prevention program should be carried out in the most critical areas of the State as per the provision indicated in Alternative 5b. However, any activities along this line should be carried out under the provisions of P. L. 83-566.

A statement is made under Alternative 5c (Land use changes and flood plain management measures) that agricultural uses would be diverted from the flood plains. This is untrue. Such a requirement should be neither desired nor recommended in Flood Plain Management. It is, of course, desirable to locate farm buildings out of the flood plains; but, it is more economical under certain circumstances to locate crops in areas subject to infrequent flooding.

Although the program is a good one, a couple of drawbacks are evident. The monetary limitation of $300,000 to carry out the program objectives is very restrictive and, in most cases, inadequate. The procedure for obtaining supplemental funding is drawn out and could have an adverse environmental impact due to the time required to obtain it. The environmental impact statement points out that during Hurricanes Camille and Agnes, as well as the extensive Mississippi River Valley flooding of 1973, emergency measures were severely constrained until supplemental appropriations could be obtained. Since Congressional action is required for these appropriations, further environmental degradation, as well as endangerment of life and property, could result from the inability of the administrative agency to implement the necessary emergency measures in the post-disaster period.

One point that requires further definition is the circumstances which constitute natural forces or elements that is the prerequisite for emergency assistance as outlined in the program. In some cases, natural elements contribute to a diaster but do not directly cause it. Point in fact is the Buffalo Creek disaster of 1972 in West Virginia. Although heavy rains contributed to the failure of a mine tailings dam, it was the failure of the dam that caused the severe watershed impairment, not to mention the great loss of lives and property. The Buffalo Creek disaster is an extreme case; but, we feel that "natural force or element" needs better definition. Furthermore, allowances should be made for circumstances in which the failure of man-made structures in conjunction with natural processes result in water shed impairment.

On Page 14, under Item 2a, a statement is made that sediment from a disturbed environment carries pathogens. We are of the opinion that newly eroded soil would not impact the environment by the introduction of pathogens. The reference to pathogens

should be discussed and documented fully or otherwise omitted.

As described in Appendix B, a State environmental agency (in our case the State Water Control Board) is supposed to participate in planning and coordinating emergency watershed protection work. Based on the format as outlined under Program Administration in Appendix B, we feel that the items discussed to reflect the damages and the detrimental effects resulting from floods, fire, or any other natural element that causes a sudden impairment of the natural watershed are less than complete. Adequate and complete descriptions of the following effects should also be recorded by the various agencies involved in the post-disaster period:

- Hydrological Effects
- Geological Effects
- Water Quality Impact on the Receiving Stream
- Biological Impact
- Commercial Species
- Non-commercial Species
- Economic Impact
- Public Health

It is important that both qualitative and quantitative analysis be made on the aforementioned items such that this information can be utilized for future occurrences.

One central aspect of the Emergency Watershed Protection Program is to safeguard lives and property from the imminent threat of flooding by the removal of flood debris, sediment, and reinstatement of channel flow capacity. This implies that the relationship of upstream flooding and downstream flooding would be essentially reinstated to the pre-disaster environmental condition. This is the desired result. Yet the SCS has gone much further than this to conduct flood control work such as rechannelling large segments of many tributaries of the Upper James River damaged during Hurricanes Agnes and Camille. Channelization alters the drainage conditions of a stream such that the velocity and flowrate are increased. Increased flooding conditions could result downstream. State agencies have no control over such channelization in Virginia.

One final point we would like to stress is that there are no definitive guidelines as to what trees would be removed from stream banks under the emergency program. Indiscriminate removal of trees along stream edges should be avoided. Not all trees that lean over the water obstruct the stream's flow. Only those trees lying in the stream channel should be removed.

Thank you for the opportunity to comment on the above Draft.

Very truly yours,

J. L. Hamrick, Jr.
Director, Environmental Affairs
Bureau of Enforcement

lnp

STATEMENT REGARDING

EMERGENCY WATERSHED PROTECTION PROGRAM

I can understand need for and public interest in cleaning up after a natural disaster. That's sound and sensible. It is also prudent to anticipate disaster, and take measures now, such as flood plains zoning and flood insurance, to minimize the adverse affects of a natural disaster.

What I cannot tolerate, however, is the production of a man-made disaster as a result of the cleaning-up, or prolonging a program long after the emergency has passed. That's ridiculous.

I am results-oriented. And the experience with channelization in too many places indicates that the results are often different than what was intended. We need, to do a better job of insuring that the promise of cleaning-up is fulfilled by the performance. And to see that future problems are minimized, not worsened by excessive stripping, clearing and channelization.

This is Virginia's cropland and streams we are talking about, and it is Virginians we are trying to help. But, the frustrating part is that -- at least so far -- Virginia government has had no control over and little effect on channelization activities. All the guidelines and policy statements in the world mean nothing if we don't get out there and enforce them.

I think this is a top-priority matter for my attention. And because this activity involves so many facets and agencies -- water, land, fish, for example -- it is an ideal topic for the Council's involvement. It is just the sort of thing we are here to do -- to see that the right result occurs, and that our environment is protected and treated sensibly.

I am confident that we'll be able to work something out with the Soil Conservation Service that will satisfy our concerns. We have an active and serious interest in controlling the program and making sure it works right -- and yelling loudly if it doesn't. And with as many people as we have available to us, I intend to see we stay on top of this. I want the assurance of the Soil Conservation Service (and the Corps of Engineers, too) that the State of Virginia will be an active participant -- not merely an after-the-fact and disappointed observer -- in the planning for, decisions about, and supervision of specific channelization projects. And not only do I want their assurance, I want to have a definite and specific procedure spelled out and agreed to between the Soil Conservation Service and Virginia regarding the carrying-out of this program. This participation is mandatory before I will endorse the idea of Stream channelization as a clean-up measure. Our comments to the Soil Conservation Service will elaborate on all of these matters in considerable detail.

Gerald P. McCarthy
Administrator and Chairman
Council on the Environment
July 19, 1974

GPM:dja

COMMONWEALTH OF VIRGINIA
OFFICE OF THE GOVERNOR

Division of State Planning
and Community Affairs
Charles A. Christophersen
Director

June 3, 1974



ADMINISTRATION SECTION
OFFICE OF MANAGEMENT
ASSISTANCE
1010 Madison Building
109 Governor Street
Richmond, Virginia 23219
Telephone (804) 770-4987

MEMORANDUM

TO: Ms. Susan T. Wilburr
Environmental Impact Statement Coordinator
Council on the Environment

FROM: Patricia Jo Webb
A-95 Coordinator

SUBJECT: USDA Draft EIS
USDA-SCS-ES-FP-(ADM)-74-1-D
Kenneth E. Grant, Administrator

The Division basically supports the proposed Emergency Watershed Protection Program as presented in the above named statement.

There is one condition on which this support must rest dealing with an area not sufficiently covered in the EIS. We would like to see a much stronger statement of policy included requiring closer coordination of Emergency Watershed Protection - goals and objectives - with local, regional and state land use policies as they relate to flooding, runoff and erosion, and flood plain management. It is conceivable from reviewing the EIS description of the program that its application could at times actually work at cross purposes to land use management objectives of other governmental units or agencies.

Although common sense indicates that this problem will not be an issue in most cases, there is one section of the EIS which gives rise to a basic concern. In Section 5 -- "Alternatives of Land Use Changes and Flood Plain Management Measures" the discussion in 5C seems to indicate a misunderstanding of the basic differences between "management type programs", such as flood plain zoning, continuing land treatment provisions and floodwater retarding structures, and an "emergency program", such as is described in the EIS. The former would be an on-going preventive measure while the latter is a clean-up and fix-up program which takes place after-the-fact of a natural disaster.

These do not seem to be alternatives to each other, but rather should work in conjunction with each other, each being directed at a different though related aspect of the flooding, erosion and sedimentation problem. That this EIS sees these as mutually exclusive alternatives and, therefore, argues against the former (management type approaches) to support the latter indicates a conceptual problem that should be resolved before the program is approved.

Emergency Watershed Protection Measures

The present program should be funded at a level that would not require the use of supplemental appropriations for all large-scale emergencies.

The authorization of special appropriations usually entails delays in the establishment of necessary corrective measures, resulting in further damage to the affected watershed.

PJW/pc

State of Wisconsin \ DEPARTMENT OF ADMINISTRATION

STATE BUREAU OF PLANNING AND BUDGET
STATE PLANNING OFFICE
Stephen M. Born, Director
1 WEST WILSON STREET
MADISON, WISCONSIN 53702
(608) 266-7958

June 12, 1974

Mr. Kenneth E. Grant, Administrator
U.S.D.A. Soil Conservation Service
Washington, D.C. 20250

Re: Draft Environmental Impact Statement on the Emergency Watershed Protection Program, Section 216 of the Flood Control Act of 1950, Public Law 81-516.

Dear Mr. Grant:

Enclosed are the comments of the Wisconsin Department of Administration on the subject draft environmental impact statement. The review of this document was performed by the State Planning Office.

While in general agreement with the program and the substance of the statement, we must disagree with the identification of resident relocation and land use changes in the floodplain as adverse effects. The primary purpose of Wisconsin's floodplain management program is to encourage such relocations and changes as the appropriate long-range solution to flood damage problems.

We appreciate the opportunity to review and comment on this document and have done so for the purposes of explaining our views and of assisting the SCS to file as a final statement a balanced document for decision making in the public interest. We look forward to receiving the final statement when it is available. Please call on us if we can assist you in the preparation of the final environmental impact statement.

A copy of this letter and our comments have been transmitted to Richard W. Akeley, SCS State Conservationist.

Sincerely,

Stephen M. Born
Director

SMB:pd

CC: Joe E. Nusbaum, Department of Administration
Farnum Alston, Governor's Office
Eugene Savage, Wisconsin State Board of Soil and Water Conservation Districts
Thomas Lee, Chief, Floodplain and Shoreland Management, DNR

22

REVIEW AND ANALYSIS

DRAFT ENVIRONMENTAL IMPACT STATEMENT OF THE USDA SOIL CONSERVATION SERVICE ON THE EMERGENCY WATERSHED PROTECTION PROGRAM AUTHORIZED BY SECTION 216 OF THE FLOOD CONTROL ACT OF 1950, PL 81-516.

COMMENTS

1. The draft statement adequately documents a range of problems related to the occurrence of a natural flood disaster, and identifies a number of measures potentially useful for implementing the purpose of the program -- "to protect man and his works and to be in harmony with the environment." On the whole, we support the statement and the program. There appears to be, however, a basic difference in perspective in addressing floodplain development.

2. As stated, the program objective is not in conflict with Wisconsin's floodplain policies. However, various conclusions and recommendations in the draft statement are not consistent with this state's floodplain management objectives. As established in the Wisconsin Administrative Code (NR 116.03), the thrust of Wisconsin's floodplain program is to enact and enforce regulations which will:

    (a) Protect human life and health;

    (b) Minimize expenditures of public monies for costly flood control projects;

    (c) Minimize rescue and relief efforts, generally undertaken at the expense of the general public;

    (d) Minimize business interruptions;

(e) Minimize damage to public facilities on the floodplains such as water mains, sewer lines, streets, and bridges;

(f) Help maintain a stable tax base by the preservation or enhancement of property values for future floodplain development. In addition, development of future flood blight areas on floodplains will be minimized and property values and the tax base adjacent to the floodplains will be preserved;

(g) To discourage the victimization of unwary land and home buyers.

In short, the intent of Wisconsin's floodplain policy is to reduce the extent and density of floodplain development as the most logical and cost effective means of protecting man and his works from the ravages of flood disasters.

3. At several points in the draft EIS, the relocation of floodplain residents and the abandonment of floodplain development are identified as adverse or undesireable effects, and the continued availability of floodplains for intensive use and development as a beneficial effect. As suggested in 2. above, the relocation of floodplain inhabitants to safer locations would further the purposes of Wisconsin's program and would be considered a beneficial effect. It is our feeling that a comprehensive disaster recovery program should include elements which would encourage and assist people to relocate away from disaster-prone areas; and that such a program should not encourage the continuation of flood susceptible development or the future construction of such development. This kind of response to flood

disasters would tend, over the long run, to reduce the need for disaster recovery programs and the expense of relief and recovery activities. Certainly, flood disaster victims must be assisted to maintain personal health and safety and the chance of additional disastrous flooding eliminated to the extent possible. However, activities which would tend to perpetuate existing development or encourage additional development of the floodplain are, in our view, inconsistent with the National Flood Insurance Program and Presidential Executive Order No. 11296 and would work against an acceptable long-term solution to flood damage problems.

4. In light of this position and the objectives of our state floodplain management program, we find it difficult to accept the implication (on page 23) that floodplains represent the only or best areas for urban expansion. In most situations, riverfront communities have upland areas on at least one side. We feel that such uplands are generally more suitable for urban development and that future urban growth should be directed toward such areas rather than to floodplains.

State of Wisconsin \ DEPARTMENT OF ADMINISTRATION

STATE BUREAU OF PLANNING AND BUDGET
STATE PLANNING OFFICE
Stephen M. Born, Director
1 WEST WILSON STREET
MADISON, WISCONSIN 53702
(608) 266-7958

July 2, 1974

Mr. Kenneth E. Grant, Administration
U.S.D.A. Soil Conservation Service
Washington, D.C. 20250

Dear Mr. Grant:

Re: Draft Environmental Impact Statement on the Emergency Watershed Protection Program, Section 216 of the Flood Control Act of 1950, Public Law 81-516.

I am forwarding these comments of the Wisconsin Department of Natural Resources, Flood Plain-Shoreland Management Section, concerning this draft environmental impact statement. Although you had requested reply by June 14th, the serious nature of these comments deserves attention.

These comments identify areas where the draft environmental impact statement gives incomplete attention to the limitations and problems associated with structural control measures, and suggests that the potential of the program for undermining the state's basic policy of flood plain land use management should be identified and evaluated.

In addition, the analysis recommends that an alternative of dropping the entire program be considered and that attention be given to land use management, rather than structural control measures.

I hope this will help clarify the State of Wisconsin's views on flood plain management, and will help you in forming your final environmental impact statement. If we can be of further assistance, please call on us.

A copy of this letter and the DNR comments has been transmitted to Richard W. Akeley, SCS State Conservationist.

Sincerely,

Stephen M. Born
Director

SMB:pd
CC: Thomas M. Lee, Department of Natural Resources
Joe E. Nusbaum, Department of Administration
Farnum Alston, Governor's Office
Eugene Savage, Wisconsin State Board of Soil and Water Conservation Districts

RECEIVED 1974 JUL 1 PM
SOIL CONSERVATION SERVICE

100% RECYCLED PAPER

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

L. P. Voigt
Secretary

BOX 450
MADISON, WISCONSIN 53701

June 18, 1974

IN REPLY REFER TO: 3550

Mr. Ronald J. Paska
Department of Administration
Room B-130
1 West Wilson Street
Madison, Wisconsin

Dear Mr. Paska:

Re: Draft Environmental Impact Statement for Emergency Watershed Protection Program, Authorized by Section 216 of the Flood Control Act of 1950, Public Law 81-516 (33 U.S.C. 701 B-1)

We have the following comments to make concerning the above-mentioned EIS statement, from a Flood Plain-Shoreland Management standpoint. In general, the EIS report does not conform to our ideas concerning proper flood plain management.

We have the following specific comments to make:

Page 16, 1st paragraph: "Remove sediment and debris from channels will reduce farm flooding and thus increase crop production?" How about the farmers downstream from this area?

Page 19 -- SUMMARY OF FAVORABLE ENVIRONMENTAL EFFECTS

"Safeguard lives and property from the eminent threat of flooding" ... "Prevent additional disastrous damage from failure from weakened dikes and dams" ... "Prevent migration of agricultural, commercial and residential from the flood plain subject to increased flooding in the post disaster condition in the flood-free areas."

The statements above are pretty broad and are not easily substantiated by past history.

SUMMARY OF ADVERSE ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED

Local initiative to seek permanent solutions may be reduced by the installation of emergency watershed protection measures. This is very true and one of the main hinderances to a flood plain management program. This subject should be dealt with on a larger scale. In this report, it is downplayed

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and should have much more discussion, both pros and cons. Soil conservation dikes and dams give local residents a false sense of security and they offer very little or no protection in times of large floods.

Page 21, Paragraph 2 -- Again implies soil conservation structures prevent flooding. It also implies intensive use of flood plain areas is good policy of which we object to.

Page 22, 5B. -- Implies floods could be controlled by permanent installations with favorable economic results. We believe complete flood control is not economical in most cases, either monetarily or environmentally.

5C. -- Land-Use Changes and Flood Plain Management. The first two paragraphs are reasonable.

Page 23 -- Last three paragraphs considered completely inaccurate.

Page 24, 5E. -- "Existing emergency watershed protection programs without sediment and debris removal, streambank stabilization and open channel measures." Without these features there would be no program.

A general thought on the entire program is that the emergency features could be handled under standard soil conservation services and the proposed $300,000 budget covered in this EIS statement is very small when considered on a nationwide basis. Therefore, an alternative is that the entire program could be dropped. Based on our experience, the Flood Plain-Shoreland Management program could be undermined by setting a lasting example of unwise flood plain construction.

Very truly yours,
Bureau of Water Regulation & Zoning

Thomas M Lee

Thomas M. Lee, Chief
Flood Plain-Shoreland Management Section

JPW:jb
cc: Presidential Executive Order File 11296
Jack P. Walsh

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

L. P. Voigt
Secretary

BOX 450
MADISON, WISCONSIN 53701

June 13, 1974

IN REPLY REFER TO: 1600

Mr. Kenneth E. Grant
U. S. Soil Conservation Service
Washington, D. C. 20250

SOIL CONSERVATION SERVICE
1974 JUN 18 AM 10:
ENVIRONMENTAL PROT

Dear Mr. Grant:

The following comments may be helpful in evaluating the issues described in the Draft EIS for the Emergency Watershed Protection Program.

Since the statement is a program evaluation without quantitative analysis and since specific projebt statements are not required, it is imperative that the rules, criteria, standards and priorities to be employed in exercising emergency measures be clearly understood. Paragraphs 1 & 3, page 11 and Item C, Appendix B are weak in this respect. In addition, provision should be made for the development of impact statements on major actions if significant adverse impacts are anticipated and time is not a critical factor.

Emotions and efforts are often at cross-purposes in the post-disaster period. A statement of priorities, within the purview of this program, dealing with the theoretical sequence of emergency measures would assure that prudent steps are taken in the logical sequence of events and that first dollars spent are where the greatest good can be achieved. For instance where vegetative cover is destroyed, the first order of business may well be its reestablishment. It is only in knowing the priorities, safeguards and quality standards proclaimed that one can have confidence that the individual program "cures" will be environmentally sound, reasonably economical and of enduring benefit.

Whereas evacuation of a flood plain or a probable burn-out is an emergency measure in the pre-disaster period and protection of life and property may be an emergency matter in the past-disaster period, the "reinstating of the relationships existing in the pre-disaster period" may require more reflection. A pre-donstruction mechanism for evaluating program emergency measures against potentially more permanent solutions to watershed problems by all agencies concerned would be a critical component of this proposed program.

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Finally, since this is a program evaluation involving emergency action and any delay including the obtaining of supplemental appropriations (Paragraph 5, page 10) hinders effective administration of the program, it would not be unreasonable to estimate the adequacy of allocated funds and the impact of insufficiency based on past experience.

The impacts described for typical disasters and emergency measures appear complete or at least representative. Thank you for the opportunity to comment on this draft environmental impact statement.

Very truly yours,
Bureau of Environmental Impact

C. D. Besadny
Director

cc: Richard Akeley, SCS
Dale Marsh

FLOAT FISHERMEN of VIRGINIA

STATE HEADQUARTERS
P. O. BOX 3431
NORFOLK, VIRGINIA 23514

June 13, 1974

Mr. Kenneth E. Grant, Administrator,
Soil Conservation Service,
Washington, D. C. 20250

Sir:

We offer this letter as a comment on your Draft Environmental Impact Statement on the EmergencyWatershed Program under Sect. 216 of the Flood Control Act of 1950. The statement was forwarded to us as interested parties by the Virginia Commission of Game and Inland Fisheries, but as time is very short, this letter will be concise and less detailed than we should like. It shall be restricted to a brief examination of some policies and benefits connected with stream channelization, as stated in sections 1 and 2 of the Draft Statement and a comparison with Appendix B (Watershed Memorandum 124). We are solely interested in your stream improvement efforts, and have no comment on replanting and hillside soil stabilization efforts. It is our recommendation that the existing program be continued with tighter guidelines and increased funding, if needed, to insure a proper job of inspection and control, but we believe that the measures outlined in your Impact Statement are not reflected in your Memorandum.

One of the methods employed by you to restore streams is straightening the channel. This has the effect of steepening the grade of a stream and puts processes of erosion and deposition into play which will not cease until the original gradient is restored, and we do not believe that you have recognized the impact of these processes in the statement before us. In fact, this process cannot restore a stream, but permanently changes it in ways which may be irreversible.

In Section 1c. of the Draft Statement, the A.D. Little report is quoted to provide a view of some of the adverse impacts of channelization (straightening or increasing the grade of a stream bed) with regard to sediment. In the second quoted paragraph on page 6, this report notes that, " . . . in Many streams following channelization it (increased bed load sediments) develops from the erosion of the banks of the stream together with sediments from other sources." Thus the process of straightening a stream will produce erosion at the banks of the new channel and deposition at the lower end where the gradient is lower. Consequently, until the stream is reduced to its natural grade, increased sediment downstream will be introduced, a period of some years. Consequently, digging out from a flood is accomplished by

straightening a stream reach ,but the erosion and increased capacity of the reach induced by the new channel will have a slower, longer term effect of dumping sediment downstream. This increased sediment load downstream will eventually produce all the bad effects of the original choking of the stream and will perpetuate the condition to a lesser degree. In effect, it substitutes an interminable chain of smaller "dig outs" for a single, larger sediment removal at the time of the post disaster condition. In Section 2d. of the Draft Impact Statement, you do not suggest this long-term problem. You state, "Downstream sediment may be temporarily increased during debris removal or other construction activities. Adverse impacts are minimized as emergency watershed protection cleanout involves relatively short stream reaches, brief construction periods, use of erosion and sediment control construction techniques, and occurs in the post-disaster environmental conditions which is characterized by abnormally high sediment rates." That the abnormally high sediment rate will continue in the post-disaster relief environment wherever a channel gradient has been steepened is not mentioned.

In fact, the adverse environmental effects of increasing a stream grade above its normal level are not addressed at all in Section 2 of your Draft Statement. All references are to "reinstating" channel flow capacity and do not mention the effects downstream of <u>increasing</u> the flow capacity, a result of straightening. Consequently, none of the arguments in favor of the program as set out in Sections 2d and 2c apply to stream straightening or clear, lined channels. All of the adverse impacts listed for the post-disaster condition hold, in reduced measure, for areas downstream from a straightened section of a watercourse. We hope that in Section 2 of your Final Impact Statement you will include these impacts, or delete totally the straightening of streams from your program, as set out in the Draft Impact Statement.

It should be noted that excessive snagging can have the same effects as channelization, by removing the roughness of the stream bed, increasing stream velocity and threby, its capacity (cfs). Part of the characteristics of a stream bed are the snags in it. Besides making good fish habitat, they slow water coming down the bed and impede precipitous runoff. T hey are deposited naturally, by trees falling down and are produced and transported in time of flood. Virtually all of the little rivers in Virginia have snags in them, as we have seen many times. A large number of snags are part of the pre-disaster envsronment and affect the flow of the stream, the placement of its bed load, and often the position of its channel. When snagging to restore stream flow, the stream should not be freed of all snags, just those which have "dammed" the stream. Even then, removal should suffice only to reintroduce flow, not to clean out the whole stream. Thus, in our opinion, WS--124 should spell out a policy against excessive snagging and the hydrologic and sedimentary effects of complete snag removal should be addressed in the final statement, or else its use as a tool deleted. In doing so, it should be remembered that snags present sites for minor deposition and dis-

courage larger sand bars from forming some point downstream. We realize that selective snagging is expensive and that it is difficult to identify the "normal" complement of snags, however we also believe that some formula between no snag removal and wholesale clearance might be devised.

The importance of "vegitative plantings" is well stressed in Section lc. of the Draft Statement. The desirable effects of shade, overhanding trees, extensive root systems, and the physical blocking of flood waters are all mentioned, and imply three levels of vegitation: Trees, shrubs, and ground cover. Unfortunately, no specific mention of these three levels is made in section 2 or 3 of your draft statement, or in WSM 1-24. It is recommended that when streamside and stream bed work is necessary, tree and shrub planting be a mandatory part of the program where practicable. In WS-124 paragraph c, sentance 7 should be amended so that trees and shrubs (not just grass) will be planted along streams where they have been removed by a flood or by construction work. Unless this measure is mandatory in the field, the third and fourth environmental gains listed in section 2g. cannot be claimed for stream work.

A further benefit of planting streamside trees when removed by flood waters will be realized as farmers will be discouraged from taking their crops up the stream edge. This discouragement will decrease bank instability and the washing of undesirable agricultural chemicals into the stream.

In keeping the criteria for emergency work within reasonable bounds, to prevent the waste of revenues for unnecessary work, and to prevent damage to downstream areas out of line with potential gains in the area of a project, we advocate these additional changes to WS-124.

A. Joint on-site inspectionby representatives of the SCS state conservationist and representatives of the state environmental, natural resource, fish and game, and planning area agencies. In this Commonwealth, Federal and State agencies have repeatedly requested this type of involvement, and are anxious to discuss stream work before it starts. The composition of such an inspecting party should be issued as instructions to your state conservationists, and the views of the non-SCS members should appear in any pre-funding reports.

B. In the Report accompanying the funding request, the map in section B-4 of WS-124 should also show structures and operations which may be endangered by the altered stream flow of any improved channel: bridges, water works, industrial intakes, urban drainages, wildlife refuges and conservation areas. The expected long-term silting below a proposed channel (or gradient increase) should be considered prior to authorizing expenditure for the channel and the proximity to the above mentioned works or activities is necessary for consideration.

C. Section B-7 should be expanded and specification made of possible impacts from a stream channel grade change or complete clearing of a channel, including long term silting downstream, damage to wildlife programs, and the effect or probable long term erision of stream banks. If the joint inspection recommended above was implemented, this portion of the report should not be hard to complete.

D. Finally, at the end of Section B of WS-124, you comment that the scope and detail of the report should vary with the scope of the emergency. We believe that another criterion for greater detail should be the anticipated adverse impacts, particularly the long-term (more than 1 year) effects of stream work. A copy of the pre-funding report as completed should be sent to the groups which sent representatives to the initial inspection.

After the procedure of funding, WS-124 does not in our opinion, adequately spell out inspection procedures to insure compliance with the Environmental Statement or any guideline which you may set. Inspection is necessary to insure the work being done conforms in cost and method with the preliminary report. Your representatives in Virginia have stated that they cannot monitor such work due to lack of personnel and that the local sponsors are not interested primarily in environmental effect of their improvements. Consequently, qualified inspection of works progress is necessary to maintain beneficial environmental effects and to insure that "emergency" efforts do not exceed the scope intended for them. If such inspection cannot be maintained,the program should be terminated, to protect, if for no other reason, the credibility of your agency.

The problem in assessing your Environmental Impact Statement is the lack of definition of "floods". At times, "Flood" in your statement seems to refer to large scale disasters,and at others, annual spring "high water". For instance, "streams clogged with sediment often flood rural roads", on page 9 make the "flooding" sound like a normal spring water level. However, to correct this condition (which is a proper matter for Flood Control measures, not for emergency clearance), you call for, among other things, debris basins, a measure to meet a flood of some moment,as a 5 or 10 year flood. Since the program under discussion is an emergency program and not meant to be a substitute for flood control planning, large basins and diversion projects would hardly seem necessary. The construction of measures greater than necessary to restore the watershed to its previous drainage function seems to be justified throughout on the basis of conjuring up the spectre of a large flood being immediately fllowed by another very large flood. Although this condition has been experienced by this Commonwealth, it is statistically improbable, and emergency measures should not be scaled to its occurence. Works to contain such large floods have no place under this program. We recommend an annual flood as the extent of protection to be offered and hope that WS-124 will be altered to state this.

In conclusion, we hope that this letter is helpful. It is our observation that much of the difficulty which has arisen between your personnel and environmental interests of this Commonwealth stems from a lack of communication and lack of control over the construction of your projects, not the intent of the projects themselves. In all cases we know of where joint inspections of proposed works have been held, the proper course of action has been agreeable to all for over 90% of the proposals. With tighter guidelines and proper inspection, we hope that agreement will be universal.

Yours truly,

William H. M. deRosset
Secretary

22

TROUT UNLIMITED
VIRGINIA COUNCIL

June 3, 1974

324 Link Road
Waynesboro, Va. 22980

Phone 703-942-1964

Mr. Kenneth E. Grant
Administrator
Soil Conservation Service
Washington, D.C. 20250

Dear Mr. Grant,

The Virginia Council of Trout Unlimited has completed its review of your draft environmental impact statement on the Emergency Watershed Protection Program. We appreciate the opportunity you afforded us to comment on the program. Our evaluation of the EIS follows.

Summary

Trout Unlimited feels that your emergency program described in sections 1a, 1b, 1c, and 1e to be well founded and valid. We feel that your analysis of the problems associated with forest fires, landslides, severe gully and log road erosion, unstable streambanks, and damaged dikes and dams was quite comprehensive. The solutions proposed for restoration of the post-disaster environment for these specific problems were correct.

Trout Unlimited finds that your analysis of problems associated with section 1d to be invalid. This section implies that man should be continuously involved with the manipulation of stream-bed substrate materials. This philosophy can only lead to the eventual destruction of all natural stream ecosystems. The movement of substrate materials within a stream system is a completely natural process, and leads to the differential sorting of bed materials that provides a vitally necessary variety of habitat for stream fauna.

One of the most disturbing aspects of the EIS is the qualification of "emergency" conditions under which stream alteration activity is advised. The stated intent to safeguard "lives and property" is too generalized a definition to prevent unnecessary and environmentally damaging projects. We strongly object to the inclusion of agricultural lands under the description of "developed" lands. By any sensible concept of proper land use, agricultural lands subject to flooding should be planted with crops that hold the soil and inhibit erosion during flooding. Pasture has been found ideal for these conditions. Trout Unlimited feels that stream channelization, "streambank shaping",or "debris removal" should be severely limited to those cases where life is threatened, occupied dwellings are in danger,or public transportation is disrupted. Even with these cases, stream alteration should be undertaken only after all other alternatives have been considered and found inappropriate.

Trout Unlimited finds that the EIS drastically understates the increased downstream flooding that takes place after a stream channelization. Further, the downstream flooding is presented as a temporary condition, rather than the permanent problem it factually is. The accelerated erosion that takes place as a result of the channelization is completely ignored in the EIS. It is well known and documented that channelizing a stream results in increased water velocity, that in turn promotes erosion. A study made by John W. Emerson of Central Missouri State College documents this continued erosive effect on the Blackwater River, which was channelized 64 years ago. This study shows that the original channel work caused an increase in the gradient of the stream, and the resulting erosion caused by the increased water velocity has widened the stream cross-section by 1173 percent in 64 years. This widening has frequently damaged bridges across the Blackwater, and sediment from the channelized section has caused downstream channel blockage and flooding.

The EIS provides a very good documentation of the biological damage that transported sediment causes in a stream eco-system. This is presented in section 1c as justification for stream bank stabilization. It is regretable that this type of biological damage was not emphasized in the section on stream channel work, since sediment generation is one of the main adverse effects of channelization. It is also incorrect to present this increased sedimentation as a temporary condition, since accelerated sediment transport is a principal continued aftereffect of channelization.

Alternatives

Trout Unlimited favors the alternatives that provide for land use changes that permit the uses of the flood plain without attendant sediment or debris removal programs. If the SCS wishes to maintain credibility as a conservation agency, it must eliminate all stream alteration work from its programs, and confine its efforts to soil conservation on the land. The overall degrading effect of channelization on mans quality of life is so well documented that it can no longer be intelligently supported by any individual or agency.

Specific Comments

1. Page 8, Paragraph 5

   The definition of threat to "property" is too general. This definition should be narrowed to those cases where occupied dwellings or public transportation is threatened.

2. Page 11, Paragraph 5

   The indication that environmental interests should be "invited" to participate in the program is untenable. It should be mandatory that the SCS review each project with the appropriate state environmental agencies. In Virginia, the principal agencies would be the State Water Control Board and the Commission of Game and Inland Fisheries. In addition, citizens organizations concerned with environmental quality should be included in the review process.

3. Page 15, Paragraph 5

Channelization encourages unwise use of floodplain lands, and this unwise use results in heavy damage during periods of unusual flooding. Correct use of frequently flooded flood plain agricultural lands can be just as profitable and beneficial to man as is the planting of improper crops that precipitate demands for channel alteration to protect those crops.

4. Page 17, Paragraph 2

It is overlooked that measures to "remove clogged or restricted short reaches" actually increases flooding downstream.

5. Page 17, Paragraph 2

There is no greater aesthetic degradation in a watershed than channelization.

6. Page 19, Paragraph 8

Migration from agricultural flood plain areas can be prevented by wise flood plain use and proper crop selection. The SCS could be of a great service to agriculture by advising proper flood plain use.

7. Page 19, Paragraph 13

The statement that water quality is "temporarily" degraded by turbidity is incorrect. This is a permanent condition in most channelized streams.

8. Page 20, Paragraph 5

Most flood damage to developed lands is the result of improper land use and lack of any land use planning.

9. Page 22, Paragraph 2

"Complete" watershed protection by this definition, implies mans total manipulation of the watershed area. This would result in the complete destruction of natural watersheds as eco-systems that provide support for diverse life forms. The use of streams in the multiple use context would be forever lost.

10. Page 23, Paragraph 3

The contention that a change in land use of the flood plain must have severe human impact is unfounded. Proper land use may cause a change in the pattern of development, but it can also enhance the quality of life for most of the inhabitants of the area.

11. Page 23, Paragraph 4

The natural movement of substrate materials during a flood, and the placement of these materials after the flood, has much less of an adverse impact on the stream fauna than does the degradation caused by channel alteration.

Sincerely yours,

G. D. Schuder, Sr.
President
Virginia Council
Trout Unlimited

cc: James Brown
Ray Corning
Charles Elliot
Dave Grimwood
Allen Hoffman
Jack Hoffman
Gene Jensen
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May 21, 1974

Mr. Kenneth E. Grant
Administrator
Soil Conservation Service
U.S. Department of Agriculture
Washington, D.C. 20250

Re: Comments on the Draft EIS for the Emergency Watershed Protection Program.

Dear Mr. Grant:

There have been serious complaints about the work of various federal agencies in carrying out emergency water resource rehabilitation efforts in the wake of flood disaster situations in recent years. Generally complaints fall into two categories.

1. The extent of the repair work on streams and watercourses has been considerably more extensive than warranted by post disaster conditions. Extensive reshaping of watercourses has been undertaken where selective clearing of debris jams and sediment blockages was all that was needed to alleviate dangerous conditions.

2. Local people, regional environmental organizations, state and federal natural resource agencies have not been notified about the areas being studied for such work and have not been invited to participate in planning such work.

As a consequence of these complaints water resource agencies engaged in emergency treatment work have received considerable bad publicity. This is hurting their professional reputations and detracting from the public's faith in their dedication to serving the public's needs and welfare. The irony is that much of this bad feeling and sorely shaken faith could be avoided by the adoptio and strict adherence to formal procedures for planning and carrying out this emergency work.

Generally it would be safe to say that most of the in-stream emergency work which has been carried out in recent years has been

to protect not lives, not buildings, but land. It is worth noting that the term "emergency" applied to this program implies a need to undertake this work quickly or disastrous losses will shortly recur.

First, such disasters, if they should recur, will not result in significant economic loss in much of the areas where in-stream work is to be carried out since work in these areas does not protect lives or buildings, but land.

Second, the frequency statistics of a comparable storm recurring in the area -- frequency statistics on which the agencies base their project planning -- would probably indicate that the likelihood of such a storm recurring in the near term is minimal.

Consequently, for the great bulk of this work there is sufficient time to consult and carefully plan with local citizens, organizations, state and federal agencies. The draft EIS implicitly admits this situation in 5d where it is argued that increasing small watershed funding will enable much of this "emergency" work to be carried out under the small watershed program over the longer term instead of immediately under the emergency program -- that, indeed, much of this work can be postponed and in the process, done better.

Turning to specifics of the program's operation we support the controls which the Administrator has outlined to audit this program in WS-124. If properly followed in the future, these should protect the SCS from much of the criticisms which have been focused on the agency in the past as a result of its emergency work. We would ask that the state offices be required to send copies of the monthly reports to state and federal natural resource agencies and individuals and organizations maintained in any log in the state office for receiving environmental impact statements.

We request that the log be revised to show (1) work applied for; (2) work on which surveys are being made; (3) work on which surveys are completed; (4) work on which planning is underway; (5) work on which planning is completed; (6) work on which construction is underway; and (7) work on which construction is completed. If there could be an indication of priority needs in working through these projects it would be helpful.

Since the SCS controls the procurement of emergency work (g) it might be possible for types of less environmentally damaging equipment to be prescribed for such work and the use of such equipment and environmentally protective work methods stipulated in the work contracts. We would suggest a listing of equipment starting with the least environmentally damaging, i.e. hand tools which must be considered and used if at all possible by SCS directed work crews.

We would hope to see a policy set forth in the final EIS that vegetation be re-established on damaged banks which provides the thermal cover and nutrients that are so important as cited in the quote from the A.D. Little report, p. 5.

We would appreciate a series of design sketches in the final EIS which would provide a more precise understanding of exactly how damaged stream areas are to be reshaped and revegetated. We hope that in the future such work will be undertaken with caution and care to avoid the sharp criticisms which the extensive emergency programs of the past have received.

Sincerely,

Tom Barlow

Tom Barlow

TB/pa

ENVIRONMENTAL POLICY CENTER
324 C Street, S.E., Washington, D.C. 20003
(202) 547-6500

May 23, 1974

Mr. Kenneth E. Grant
Administrator
Soil Conservation Service
U.S. Department of Agriculture
Washington, D.C. 20250

Dear Mr. Grant:

We wish to comment on the draft environmental impact statement for the Emergency Watershed Protection Program. We strongly endorse the Administrator's requirement that a log be kept in the State office of all work to be carried out under the emergency relief program. We trust that projects will be added to this log as soon as application is made for assistance by local interests so that the activities carried out within this program within and outside of the SCS can have clear notice and the longest possible period of time so suggestions can be made as to the best manner in which to carry out rehabilitative work involved at individual sites.

Much of this work can have minor physical dimensions, be geographically scattered, and accumulate quickly following a regional flooding problem. For this reason we can appreciate the difficulties in bringing the work into conformance with NEPA, particularly the impact statement requirements of NEPA. To assist local and State SCS personnel in determining whether the impact of the work required at a particular site is of the magnitude that an EIS is appropriate perhaps a form checklist of potential impacts could be developed by the SCS and made available to SCS officials surveying areas needing emergency treatment. The checklist would be completed for all emergency work by the respective surveying officer at the time of his site visit or shortly thereafter before any planning got underway or work arrangements were made. The checklist would be useful in selecting those rehabilitative measures which minimize environmental impacts. Such a completed checklist filed at the State office might help the State personnel from becoming involved in work which is so environmentally disruptive that the public reaction becomes sharply critical until every method has been considered for ameliorating the destructiveness. Such a checklist for

watercourse rehabilitative work could contain the following items:

site of project
work needed/proposed
fishing resources/specie listing
anticipated effect of needed/proposed work on each
specie - short/long term
game resources/specie listing
anticipated effects of needed/proposed work on each
specie - short/long term
fowl resources/specie listing
anticipated effects of needed/proposed work on each
specie - short/long term

current water quality conditions - indicate chemical
content and test used to determine content
oxygen
phosphorous
nitrogen/nitrite
sediment
anticipated effects of needed/proposed work on chemical
contents of water - short/long term

In the final environmental impact statement we would also be interested in an explanation of the project funding procedures. We are concerned that there might be an understandable rush to spend appropriated money as quickly as possible to prevent the loss of such funds because of end of fiscal year cut-offs or Executive impoundments as the psychology of the emergency recedes into the past. Is there any truth to these surmises? For if money does get spent quickly we are concerned that a particular project might not be as carefully planned or work might not be as meticulously carried out to minimize environmental impact as might be possible if more time were available -- SCS officials knew that whatever money they required would be there when they finally forwarded their funding request. If carry over, set aside procedures for handling funds are not available now and, if available, might improve this program in terms of minimizing environmental damage we would hope that the Final EIS will point this out for the benefit of Congress in its development of future emergency appropriation measures.

Sincerely yours,

Brent Blackwelder

Brent Blackwelder

BB:mrt

KENNETH E. GRANT

32 Dare Rd.
Grafton, Va. 23692
June 5, 1974

JUN 1 0 197

Mr Kenneth E. Grant
Administrator, S.C.S.
U.S. Dept. of Agriculture

Dear Sir:

In re: Emergency Watershed Protection Program Draft Environmental Impact Statement, USDA-SCS-ES-FP-(ADM)-74-1-D

When given the opportunity to review and comment on the subject document, I had every intention of doing so objectively, even though at times I have been quite emotional about the subject of channelization.

However, the presumption, suggested throughout this document that man's immediate and short term manipulations of his environs are more viable than natural events renders objectivity hard to come by. In fact, any complacency I may have had is shattered by Paragraph 1 --- "such emergency measures for runoff retardation and soil erosion prevention as may be needed ---." The effect of channelization has been, in <u>every</u> case I have observed, to vastly increase runoff and soil erosion.

A specific area is used to illustrate. A stretch of the South Fork of Rockfish River flowing past Nellysford, Va., prior to the Aug. 1969 storm, was a rather passive and quiet stream, the banks heavily covered with vegetation ranging from grass, weeds and small brush to large maples, sycamores, oaks, etc. The water was cool and supported heavy aquatic life, including some trout. After the 8/69 storm, Camille, there was virtually no damage to the stream proper. Fences crossing the stream were washed away, there was some damage to bridge approaches, and one minor and <u>natural</u> diversion of the stream bed.

The effect of channelization was to:
(a) Completely denude the banks of all vegetation.
(b) Extreme atmospheric pollution from burning this vegetation.
(c) Removal of all stream undulations and turns.
(d) Leveling of streambed and banks.
(e) Removal of all larger and permanent rocks and boulders from stream bed.
(f) Filling channel and banks with siltable and erodable fine material.

The immediate results of this include:
(a) Very heavy runoff of sediment and silt during this operation.
(b) Destruction of virtually all aquatic life in this area.
(c) Increase in temperature of water.
(d) Increase in water nutrients.
(e) Increase in turbidity.

The longer term results include:
(a) High water temperature.
(b) Very little reestablishment of aquatic life.
(c) Constant erosion of unstable bed and banks.

The inevitable and far greater destructive effect became apparent after the Oct. 1972 storm, Agnes. Without stable banks or bed, sheltering vegetation, turns and undulations, the damage from the relatively light fallout of this storm was profound. Approximately 2 - 3 acres of bottom land was washed away from one small (about 400 yards) section of this area. Very heavy erosion occurred along this entire section. The stream bed was altered almost the entire length of this subject area. This was a result of channelization and channelization only.

Further proof of the fallacy of channelization was the heavy damage down stream from the Oct. 1972 storm. This included erosion to streams, heavy flooding, in Richmond for instance, and damage to shellfish in the James River/Bay area.

Since the guidelines for this are not only inadequate but are also routinely violated, I strongly suggest no program for stream channelization, and only limited funds allotted for necessary emergency cleanup after severe storms. Certainly my future votes will go to the one who adopts this form of policy.

J. D. Perdue

32 Dare Rd
Grafton, VA
23692.

KENNETH E. GRANT

VIRGINIA DIVISION

The Izaak Walton League of America

INCORPORATED

DEFENDERS OF SOIL, WOODS, WATERS AND WILDLIFE

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Mr. Kenneth Grant
Administrator
Soil Conservation Service
Washington, D. C. 20250

Dear Mr. Grant:

Streams in the James River Basin in Virginia have been so severely gouged, raped and straightened they have become open ditches, as a result of the over $6 million spent in channelizing by the Soil Conservation Service following the Camille and Agnes storms in 1970 and 1973. All of this was done in the name of "emergency measures" to retard run-off, prevent erosion and safeguard lives and property from floods.

Instead, the vegetation including grass, shrubs and trees has been removed, the braking action of streams' curvatures have been reduced and two recent floods have aggravated the problem by creating excessive flooding and siltation in the lower James in the Richmond area.

The Draft Environmental Impact Statement of the Emergency Watershed Protection Program under Section 216 of Public Law 81-516 should definitely include recommendations to accommodate the following:

A precise definition of "emergency" measures should be spelled out to mean only the 1) removal of debris which prevents the free flow of water and 2) the repair of breakage in dams. 3) Shrubs and trees should be replaced.

An Environmental Impact Statement should be prepared, with public citizen and agency input, before any other alterations are made. The waters of the Commonwealth belong to all of the citizens so it is imperative that the State Water Control Board and the Commission of Game and Inland Fisheries be actively involved in any planning which affects the streams in our State.

Flood plain management and zoning should be encouraged to the fullest and made the prime method for flood protection. Virginia has lost more in non-replaceable natural values than the past and proposed indiscriminate channelization can ever offer.

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It is further recommended that funds for channelization should be used to pay for damages done by storms to areas of landowners who practice flood plain management, rather than channelization (other than debris removal and dam repairs.)

The Soil Conservation Service needs to reorient its policies to conserving - saving - soil instead of abetting its relocation downstream.

Thank you for permitting me to express the views as a citizen and as a working member of a conservation organization.

Sincerely yours,

Gladys L. Harris

Mrs. Gladys Lewis Harris
Water Quality Committee
Izaak Walton League of America

cc SWC Board
Commission of G&IF
IWLA

Chesapeake Bay Foundation,
York Chapter, Inc.
P. O. BOX 643
YORKTOWN, VIRGINIA 23490

June 10, 1974

Mr. Kenneth E. Grant
Adminstrator, Soil Conservation Service
U. S. Department of Agriculture
Washington, D.C. 20250

Dear Mr. Grant,

This is a letter of comment on the "Draft Environmental Impact Statement", USDA-SCS-ES-FP-(ADM)-74-1-D, "Emergency Watershed Protection Program Authorized by Section 216 of the Flood Control Act of 1950, Public Law 81-516 (33 USC 701b-1)".

The Chesapeake Bay Foundation, York Chapter, Inc, has been in existence for six years, and in that time has developed into a stable, financially secure, and continually growing organization. We have taken great pains to prepare responsible and professionally mature positions whenever we make presentations to any level of government, and in so doing have gained the respect of many government officials. In short, we have taken, in such cases as appropriate, the position of the "loyal opposition" and have avoided taking radical or indefensible positions.

With this in mind, we reviewed the Draft EIS with the intent of taking a conservative (and somewhat parochial) position of pointing out to you our concern about the impact of channelization on the lower James River - our geographic area of direct concern.

Like many residents of the tidewater area, particularly those like ourselves otherwise occupied with local environmental matters, we had been aware in only general terms of what was actually happening up in those mountain streams. In researching for this response, however, we have interviewed people more directly involved (including some of our own members) and have found that the whole post-Camille "reclamation" project has been such an immense disaster that it has been impossible to even hold an unemotional meeting on the subject.

We therefore wish first to point out to you the two major areas of concern which we have about impact of channelization on the James River, and which are not addressed in the EIS:

1. Sedimentation of oyster beds

2. Upsetting the salinity balance.

Secondly, we wish to attach a point-by-point discussion of the EIS, with the hope that you will understand, if not agree with, some of the more emotional comments.

Thirdly, we wish to point out that, from a perverse point of view, Agnes might have been a blessing. The fact that this moderate (as compared to Camille) storm caused such massive downstream damage; the fact that the crest took 30 hours to go from Nelson County to Richmond as compared to three days for Camille; the fact that the flood in Richmond was the greatest in the city's history doing tens of millions of dollars in damage as compared to the far less extensive flooding caused by four times worse Camille; all these things clearly illustrate the idiocy and self defeating features of channelization.

Fourthly, we wish to list effects of the channelization which we believe to be fact, and which are either not addressed, not addressed adequately, or misaddressed in the EIS:

1. Removal of pools and eddies, necessary as a habitat.

2. Creation of a sterile environment.

3. Destruction on a massive scale of streamside vegetation which causes:
   a. solar heating of water (over 20°F increase in the Rockfish River)
   b. reduction of food elements
   c. unstable banks.

4. The arbritary re-routing of streams by "bulldozer operator engineering" to unstable routes. (It has been pointed out to us that the stream banks after Camille, while heavily littered, were largely stable and in their historic positions. The relocated streams are largely unstable.)

5. Increased siltation.

6. Higher highs and lower lows in the normal variations in water levels.

Your attention to these comments would be appreciated.

Sincerely,

H. A. Ross-Clunis Jr.

President

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POINT - BY - POINT DISCUSSION OF:

Report USDA-SCS-ES-FP-(ADM)-74-1-D

"Emergency Watershed Protection Program Authorized by Section 216 of the Flood Control Act of 1950, Public Law 81-516 (33 USC 701b-1)"

"Draft Environmental Impact Statement"

by: Kenneth E. Grant, Administrator, Soil Conservation Service

March 1974

Prepared by: United States Department of Agriculture, Soil Conservation Service, Washington, D.C. 20250

Comments relate to paragraph numbers, starting on Page 1 of the EIS

1. Quotes law authorizing emergency measures for runoff retardation and soil erosion protection. Channelization has increased water runoff and soil erosion.

Figure 1. This is not representative of the facts, since the effects of the program have been to retard natural recovery.

1a. Speaks of effects of removal of vegetation, including loss of habitat and increased erosion. The bulldozers have removed far more streamside vegetation than did Camille.

1b. Speaks of gully erosion, and means of control. This is futile, and man's attempts to interfere are bound to have backlash effects. For example, what is the logic of "saving" a gully by building a dam to flood it?

1c. This is one of the more infuriating parts of the EIS. First it says floods, etc, may strip away stream channel vegetation. Then it quotes from a report which lists some of the deteriorative effects of the removal of streamside vegetation, and finally concludes that vegetation plantings are necessary to stabalize the stream banks. They are necessary because bulldozers, not hurricane Camille, removed the natural vegetation.

1d. Speaks of the effects of clogged streams. If the removal of debris from streams can be used as an excuse for the excesses of the channelization program, the presence of a cyst on one's cheek should justify decapitation.

1e. Speaks to repairs of dams or dikes. No comment.

1f. Speaks to the procedures and guidelines of implementing an emergency watershed protection program. It is difficult to understand the relationship between the guidelines that are stated and the outrages that have occurred. The most ironic statement is "Emergency measures are encouraged that directly help to restore lost environmental values." The rivers and streams of the James River drainage basin were in immensely better shape from an environmental point of view after Camille but before channelization than they are now.

2. Again says that the thrust of the program is to speed recovery of a disaster impacted area to its pre-disaster conditions. The utter falsity of this position is appalling.

2a. Speaks to the advantages of vegetative cover. Again, what removed the vegetation cover, Camille or bulldozers?

2b. Speaks to stabilization of gullies and log roads. It is all very laudable, if not overly realistic, but does one "save" a gully by flooding it as proposed in paragraph 1b?

2c. Again speaks to the advantages of vegetative cover on stream banks. Again, what removed this cover?

2d. Speaks to the need for post disaster removal of debris, etc. This is inarguable. The shame of the matter is that the recovery operations were not limited to this. Particularly poignant is the sentence "Normally emergency work would not involve removing streamside vegetation other than in access roads to transport machinery to and from work areas". Nothing could be further from the truth in describing post-Camille channelization. Also of note is the comment about increased stream temperatures. Actual increases of stream temperatures, in like times of year, from the low 60's (F) to the mid 80's with obvious disastrous effects on fish have been measured in the Rockfish River. This is due almost entirely to the removal of vegetation by bulldozers.

2e. Speaks to the impacts of repairing dikes, dams, etc. No comment.

2f. Speaks to other environmental impacts of protection measures. While laudable in its intent, it is certainly not a substantive representation of the actual facts.

2g. Lists favorable environmental effects of the program. The first four are absolutely false, and in fact the reverse of each of them is true. Relative to the fifth (reduce threat of flooding) one has only to ask the residents of Richmond as to the effects of the eight inch rainfall of Agnes versus the effects of the over 30 inch rainfall, but pre-channelization Camille. The rest are debatable in the extreme.

2h. Lists adverse environmental impacts of the program. They are understated by several orders of magnitude. Of particular note is the <u>increased</u> downstream sedimentation (instead of a decrease as shown in 2g) and its effects on the lower James River.

3. Relationship between short and long-term land use. This is a series of apple pie statements impossible to relate to the current channelization efforts.

4. Irretrievable commitment of resources. No comment.

5. Alternatives.

5a. No program. This is simply not a fair representation of fact. A storm like Camille will be a disaster under any circumstances. While the need for debris removal from many areas is inarguable, the actual channelization has increased, not decreased, the deteriorative effects noted. For example, trout could be caught in the effected rivers after Camille, but not after channelization. The oyster beds in the lower James were relatively undamaged by Camille, but Agnes, with one fourth the rainfall but occuring after channelization, caused great damage.

5b. Complete watershed protection, etc. This ammounts to a multi-hundred million dollar complete rape of the natural drainage of the upper James River drainage basin. The environmental effects are bound to be extreme, and are not substantively addressed. One envisions a complete series of reservoirs and drainage ditches in lieu of the lovely rivers and streams of Virginia's mountains, and the thought is absolutely appalling. Our objection to this concept cannot be overstated.

5c. Land use changes, etc. Certain portions of this start to make sense until one starts to realize the magnitude of what is being proposed. There are certain natural risks to living in a mountain valley, as there are to living on the sand dunes of the Outer Banks. It is overwhelming to consider the government attempting to mitigate those natural risks with wholesale acquisition of land and relocation of population. One simply cannot protect the residents of mountain valleys from the effects of an over thirty inch rainstorm, predicted to occur once every tens of thousands of years any more than one can protect the residents of the tidewater region from the occasional "Storm of 33". Land use planning for flood plains is laudable, but certainly not at the scale that is implied by this paragraph.

5d. Increased funding of existing program. All that can be said is that one is simply appalled at the thought of increased or continued funding of the on-going programmed disaster.

5e. Reduced program alternatives. This is another example of the fuzzy thinking exhibited by this report in that it includes debris removal with the utter outrage of channelization, and again completely misrepresents the sedimentation issue.

6. Organizational procedures. No comment.

COMMENTS

of

Newton H. Ancarrow

dated

14 June 1974

on

EMERGENCY WATERSHED PROTECTION PROGRAM
AUTHORIZED BY
SECTION 216 OF THE
FLOOD CONTROL ACT OF 1950, PUBLIC LAW
81-516 (33 USC 701b-1)

DRAFT ENVIRONMENTAL IMPACT STATEMENT

I was assigned the duty of responding to this Draft Environmental Impact Statement at the May 18th meeting of the Conservation Council. I accepted this duty without hesitation. This meant that I had only 4 weeks to respond. What with all the other environmental impact statements and assignments I have been called on to do, I simply did not have time to prepare this as I usually do or should. However if I were given the opportunity I would be willing line for line, item for item comments on the entire document citing specific instances to support my statements.

The Conservation Council of Virginia is a coalition of 40 odd separate organizations with different points of view and different degrees of conservatism. As I read this impact statement, I find it disturbing to say the very least. As a result, I do not feel that I am in a position to state a position for all of the members of the Council, therefore, I shall speak only for myself. I will then submit these comments for the Councils approval or disapproval. This may be beyond the deadline for responding to this Impact Statement, but under the circumstances, the press of time, this is the only thing I can do. You will be advised of the actions of the Conservation Council of Virginia.

First, I noticed that the letter of transmittal is dated April 30, 1974. Only the mailing list there were only 4 Citizens Groups that were notified of the existance of this statement. I know of many, such as the Isaack Walton League, Sierra Club, Virginia Wildlife Federation, some of which are not affiliated with the four contacted, who are actively interested in the subject. It appears to me that this was a deliberate attempt to limit the distribution of this document to the public for comment. I know that both Mr. David N. Grimwood and Mr. J. K. Abernathy personally and individually knew of my intense interest in the subject. I made several visits to their office here in Richmond and spent a day with Mr. Abernathy and Mr. Warren Friend touring the streams in Nelson County. I requested Mr. Grimwood to participate in a filmed essay,on the subject of channelization, which I financed personally. The invitation which Mr. Grimwood declined was extended to the SCS requesting participation in the film. Mr. Joseph Wilson did accept and participated. Mr. Grimwood told me that if my film was too critical he would simply make one of his own to counter it. Since the vast majority of the money, as shown on page 10, has been spent in Virginia I do not feel that the citizens of Virginia have been given sufficient opportunity to respond to this Draft Environmental Impact Statement on the use of Section 216 funds for channelization in this state. It may be true that copies would have been made available upon request, but one has to know of its existance before a request can be made.

I will respond only to that part of the statement that deals with channelization in the James River Basin, since that is the part that I am personally familiar with. All of my remarks are directed at that subject and that subject only.

Section 1

This section is a recitation of exactly what the SCS did, not the flood, in its "stream rehabilitation " in the James Basin.

Figure 1

This is misleading in that it infers that "Emergency Watershed Protection" accelerates recovery. The way it was done in Virginia this is absolutely not so and it is a purposeful misstate-

ment of fact. The areas not disturbed although "damaged" have substantially recovered while those channelized have not and today, 5 years after the flood, have all the bad attributes described in Section 1,

Section 1f

First Paragraph

In some instances this work was imposed on protesting residents. In other instances the "father image" of the SCS was imposed on otherwise relatively neutral land owners. What I am trying to say is that channelization was actively promoted.

Second Paragraph

This is absolutely false. State laws were blatantly violated, particularly water laws. But due to the incestuous relationship of government agencies, these laws were not enforced.

Sixth Paragraph

The SCS projects used bulldozers to destroy all vegetation and in some cases nothing has been reestablished to this date.

Seventh Paragrapg

Since anout 50% of the drainage basin has been destroyed and the hydrology altered, Richmond, which is downstream, has been experiencing more frequent and more intense flooding. Hence they are proposing to build $50,000,000 protective walls.

Eight Paragraph

This is absolutely not true. This is what should be done but does not reflect what has happened in the James Basin. The facts speak for themselves.

Nineth Paragraph

True these agencies are invited but their requests are ignored. Guidelines were established but they too were ignored. No citizens groups were allowed to participate even though they had requested.

Twelth Paragraph

This gives a pretty good idea of the extent of destruction wrought on Virginia by this program. When this is added to that done by the Corps. of Engineers, ASCS, Office of Emergency Preparedness and the Virginia State Highway Department, the destruction of Virginia's natural streams and the hydrology of the basin has been traumatic, to say the least.

Since time does not permit further detailed comment, I will attempt to recite what has happened in Virginis.

In the Tye River, for instance, bulldozers were put in the river at the boundry of the George Washington National Forest. They cleared the stream even of bolders. They straightened the channel, reducing the roughness coefficient. For considerable stretches they stripped the banks, made the hydraulic slope uniform, increased the hydraulic parameter, pushed up birms along both banks, widened the channel and in general destroyed the beauty of the stream. This work continued, at least, until June of 1973 which was four years after the emergency. Where there were trout there is nothing now but a few minnows. Guidelines were established with the State Agencies, and in every case, I have seen, every one of the guidelines was violated. The SCS has been almost totally unresponsive to suggestions and complaints of the citizens and State Government of the State of Virginia. In my opion, the SCS has acted irresponsibly and has wrough unnecessary, excessive, and irreparable damage to the James River Basin. They may have even delivered the death blow.

The SCS, in consort with others, has spent millions channelizing the streams of Virginia to protect the local lands from flooding. This increased siltation downstream (as shown by the NASA ERTS salitate photograph E-1080-15194-01) so that the Corps. of Engineers had to spend additional millions dredging the harbor at Richmond. It also has increased flooding in Richmond so that the Corps. of Engineers is proposing $50,000,000 floodwalls as well as other work at Beuna Vista. Some of the residents along the Bullpasture River are now experiencing flooding as never before as a result of channelization. It has also reduced the conservation low flow thereby threatening the water supply of the City of Richmond. As a consequence of this, the Corps. of Engineers, SCS, ASCS and others propose spending over $1,000,000,000 to build dams and other "watershed improvements" to"augment low flow", flush out pollution, improve or increase recreation, that has been destroyed, and all the other good and wonderful things ascribed to the project. In building these dams the very land we started out to protect from flooding will be permanently inundated. What a travesty on all the beautiful an descriptive terms used to describe these boondogles. We will have come full circle and have a managed river like the Colorado.

Section 5F suggests that funding should be increased for 216 Projects. I would suggest that too much has already been spent. This is a simple case of "empire building". I would further hope that the State of Virginia could be exempt from the use of 216 funds in the future. Not because of the words or intent of the law, those are admirable and well intended, but because of the way the law was administered. I would even further suggest that the use o 216 funds in the James River Basin was not in compliance with the law but was in fact in violation of the intent of the law due to the results produced.

Again I apologize for the lack of detail and examples in these comments.

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